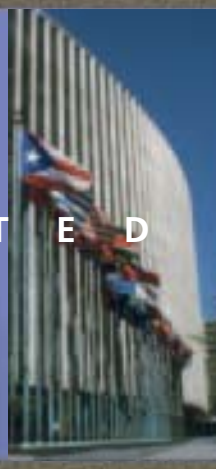
How the Pan American Health Organization's 60-year partnership with the Kellogg Foundation has touched millions of lives in the Americas

A HEMISPHERE UNITED



A Kellogg Foundation tribute to the Pan American Health Organization upon the celebration of its 100th Anniversary

"The teamwork exhibited by PAHO and its partners has itself become a unifying, democratizing force, empowering women and communities and drawing countries closer together in networks of knowledge and mutual aid."

Kofi Annan
U.N. Secretary-General

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A Hemisphere United

by Dr. Mario Chaves

with Glen Cuthbert

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The Power of Partnership

We both recently had the privilege of attending PAHO's centennial gala at its headquarters in Washington, D.C. It was truly a wonderful opportunity to celebrate and, perhaps more importantly, reflect upon the 100 years of progress that PAHO has helped bring to the Americas.

The PAHO story is one of bravery, resolve, and innovation. But it was the theme of partnership that echoed most frequently throughout the stirring speeches and dedications. The remarks of U.N. Secretary-General Kofi Annan resonated with particular intensity:

"The teamwork exhibited by PAHO and its partners has itself become a unifying, democratizing force, empowering women and communities and drawing countries closer together in networks of knowledge and mutual aid."

PAHO has indeed fostered a spirit of collaboration that benefits people from Canada's northernmost hinterland to Argentina's southern shores. As a result, PAHO has helped unite its member states in a quest that transcends not only geography, but political and economic ideology as well: good health for all human beings.

The W.K. Kellogg Foundation has consistently been one of PAHO's most stalwart allies in this pursuit. For six decades now, our two organizations have worked together to solve countless problems in the sphere of public health.

At first glance, you might not guess that the two would be a good match. PAHO operates most effectively at the highest planes of decisionmaking, helping member states shape public health policies and create large-scale initiatives, both national and international. The Kellogg Foundation, although an international organization, focuses heavily on programming at the community level.

Yet PAHO and the Kellogg Foundation have consistently combined their distinct talents to offer people new hope and a chance to reach their full potential.

Our partnership has seen military dictatorships and economic crises come and go. We've overcome great distances and a dearth of medical resources. We've built better public health in areas previously plagued by disease and poor sanitation. And in the process, we've touched the lives of millions.

The PAHO-Kellogg Foundation partnership extends outward, to caring people working in universities, hospitals, community organizations, health systems, and governments. In fact, these partners play a monumental role in transforming ideas into action.

With the power of partnership in our collective hearts and minds, the Kellogg Foundation has produced this retrospective as a centennial gift for PAHO. Together, we honor 60 years of inspiring collaboration, and look forward to many more.

Sincerely,

William C. Richardson, Ph.D.

Dr. Mirta Roses Periago

William C. Richardson, Ph.D.
President and Chief Executive Officer
W.K. Kellogg Foundation

Dr. Mirta Roses Periago
Director
Pan American Health Organization

"There can be no nobler feat than true Pan American cooperation in health."

J.H. White
U.S. Assistant Surgeon General

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Origins

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Origins

A Crisis in Public Health

Furious winds of change swept across Latin America during the 19th century. Through hard-nosed diplomacy – and costly wars of independence – colonies became proud republics. Old economic platforms crumbled, hastened by the end of slavery, emergent industrialism, and expanding commercial relationships with European powers.

Social and demographic transformation closely followed. Immigration contributed to an expanding population, which more than doubled between 1850 and 1900 in some areas of South America. As a by-product, urban centers swelled. Infrastructure, however, did not keep pace, and good housing, roads, and sewage systems were all in short supply. Poverty and malnutrition became widespread.

These problems intensified a public health crisis of epic proportions. The centuries-old war against contagious disease continued to rage, and Latin America – particularly its ports – witnessed some of the fiercest engagements. For example, Recife, a large, bustling city in Brazil, was described as "a sick body" and "a city of plague," with disease rampant in its streets and sewers. By 1900, health officials had documented 93 epidemics of 11 different diseases in Recife and its surrounding states.

It was a similar story throughout Latin America as yellow fever, bubonic plague, cholera, and malaria struck again and again. Unfortunately, the dearth of hospitals and medical staff meant that health care was available only to the fortunate few, leaving great swaths of Latin America defenseless against the onslaught.

Chapter 1
Origins

Turn-of-the-Century Triumphs

Although the situation beckoned for international collaboration, such a response was slow in coming. The foundation for the Pan American Union was not laid until 1889, at the First International Conference of American States. But setting the tone of late 19th century inter-Americanism, the organization initially focused on economic issues, almost to the exclusion of all other issues, including public health.

Members of the first Executive Board of the Pan American Sanitary Bureau met in Mexico City in 1902.

The first steps to overcoming this myopia were taken in Mexico City in 1902. Realizing that widespread disease and poor health were making deleterious impacts on trade, delegates to the Second International Conference of the American Republics resolved to organize a special forum on public health. In December of that year, true to their word, officials from 11 countries convened at the Willard Hotel in Washington, D.C., for the First General International Sanitary Convention of the American Republics.

The Willard's convention room buzzed with a mixture of spirited debate and good will, as delegates drafted myriad resolutions to improve public health in the Americas. One outcome had proven particularly important to this noble goal: establishing the International Sanitary Bureau, which later became known as the Pan American Sanitary Bureau (PASB) and, eventually, the Pan American Health Organization (PAHO). By virtue of these historical roots, PAHO holds the distinction of being one of the oldest continually operating international organizations in the world.

With scant resources – no full-time staff and a mere $5,000 budget – the newly formed organization, administered by a seven-person committee, worked to provide governments in the region with the most up-to-date information available on communicable diseases.

A Code of Honor

Scheduled at two-year intervals, American Sanitary Conferences enabled officials to discuss these perils and how they were affecting public health in their countries. But the International Sanitary Bureau was hampered by a narrow mandate, financial constraints, and lapses in communication, and took very little action between meetings. When World War I broke out, attentions were diverted elsewhere and the organization fell virtually silent.

Thankfully, the malaise was short-lived. Hostilities ceased in 1919 as the Treaty of Versailles took hold, motivating governments across the globe to place new emphasis on improving the human condition. Energized by this zeitgeist, delegates to the Seventh American Sanitary Conference in Havana, Cuba, contributed one of the greatest public health policy achievements in history: the Pan American Sanitary Code. Signed by representatives of every American republic, this vital document gave PASB a new mandate as the "central coordinating sanitary agency of the various member republics of the Pan American Union."

And with that new mandate came the power to influence and inspire nations towards better policies and programs, prompting U.S. Assistant Surgeon General J.H. White to proclaim, "There can be no nobler feat than true Pan American cooperation in health."

Another seminal moment occurred in 1920, when Dr. Hugh Cumming was appointed both U.S. Surgeon General and PASB's director. A well-known and respected public health guru, Dr. Cumming helmed the PASB until 1947. During his stewardship, PASB's staff and budget expanded greatly, enabling the organization to tackle a wider range of issues, such as nutrition, venereal disease, and maternal and child health. The PASB also started sending representatives to Latin American countries to help government officials create beneficial public health programs.

"Pro Salute Novi Mundi"

Global conflict – and its resolution – would once again increase the organization's scope of affairs. World War II was not only a period of incalculable suffering, it also ushered in a sobering new reality: that weapons of mass destruction threatened the very existence of our planet.

To help avoid such a fate, and to build a better world through cooperation, the United Nations was established in 1947, with the World Health Organization (WHO) serving as one of its specialized agencies. Soon thereafter, the PASB acted as WHO's regional office for the Americas, but without relinquishing its position as a fully autonomous organization.

It would take a remarkable leader to help PASB balance these dual roles. And that's exactly what it got in Dr. Fred L. Soper, who was best known for leading a successful campaign to combat the malarial mosquito in north-eastern Brazil. A man of vision, with intellect and energy to match, Dr. Soper served as director until 1959. He left the organization – by then known as PAHO – with six country offices and a healthy budget of $8 million.

Dr. Fred Soper presided over significant growth and change during his years as PAHO director from 1947 to 1959.

During the four decades that followed, successive directors – featured on pages 104 and 105 – built on this momentum, helping PAHO become an increasingly important player on the world stage. Today, working under the motto "Pro Salute Novi Mundi" ("For the Health of the New World"), PAHO stands at the forefront of public health in the Americas, taking on a host of issues that include medical education, oral health, and family wellness.

Fortunately, the organization has had an important ally in many of these campaigns: the W.K. Kellogg Foundation.

Nourishing the Nation

W.K. Kellogg (1860–1951) lived modestly, using his immense wealth to extend hope to millions worldwide.

Traveling broom salesman, hospital administrator, and multimillionaire breakfast cereal pioneer, Will Keith Kellogg ranks as one of the greatest philanthropists in American history. His outward reserve and shyness masked a fierce ambition that guided his cereal business through disaster, competition, and even the Great Depression.

Born on April 7, 1860, W.K. (he disliked the name Will Keith) Kellogg worked briefly at selling brooms for his father, before becoming a manager at the renowned Battle Creek Sanitarium, where his older brother, John Harvey Kellogg, was head physician. W.K.'s discovery that corn could be turned into a light, nutritious breakfast food was a happy accident. But the relentless promotion and expansion of his discovery into a national and international food phenomenon took a unique combination of determined hard work, vision, and sheer daring.

Kellogg's Corn Flakes was first made available to the public in 1906 – just four years after the first inter-American conference on public health. The product quickly grew in popularity, despite a fire that destroyed the manufacturing plant in 1907. There would soon be a rush of competition, but Kellogg's sound grasp of economics and marketing kept his product ahead. During the Great Depression, while competitors cut their promotional budgets, Kellogg boldly raised his spending on national ad campaigns. It is a testament to the strength of his branding that the original Kellogg's Corn Flakes continues to hold its own today amid the dizzying variety of cereals on supermarket shelves.

Throughout his life, W.K. Kellogg was remarkable for his modest lifestyle. Even as a millionaire, he lived for many years in a two-story stucco house in Battle Creek, Michigan. His charitable giving grew alongside his wealth, with a particular focus on children. In 1925, he established the Fellowship Corporation, which helped to build an agricultural school, a bird sanctuary, an experimental farm, and a reforestation project. He also donated

generously to hometown causes, funding the building of two schools, a civic auditorium, and a youth recreation center.

Helping People Help Themselves

In 1930, fired with determination after attending a White House Conference on Child Health and Protection convened by President Herbert Hoover, he established the W.K. Kellogg Child Welfare Foundation. A few months later, he broadened its scope and changed its name to the W.K. Kellogg Foundation. During his lifetime, he would donate $66 million in Kellogg Company stock and other investments to strengthen his new philanthropy and ensure its continued effectiveness.

Under its president, Dr. Stuart Pritchard, the Kellogg Foundation saw itself as a "little ship" and determined to stay "close to harbor." Mr. Kellogg's hometown of Battle Creek, and in particular the surrounding rural communities, were the beneficiaries of this focus. The need for rejuvenating health services in these communities was very real. Conducting a survey of tuberculosis in rural Michigan for the state legislature, Dr. Pritchard and his team remarked that physicians were failing to diagnose tuberculosis in its early stages. Such omissions pointed to a need for continuing education, a theme that was to run strongly through the Foundation's future programs.

Before Mr. Kellogg died in October 1951 at the age of 91, he decided that his Foundation could make a bigger impact as a grantmaker, rather than as a program administrator. It turned out to be an extremely wise decision that has brought hope and health to millions of people worldwide. Today, the W.K. Kellogg Foundation is one of the United States' largest philanthropies. It has funded initiatives at home and abroad that range from improving curricula at educational institutions, through developing programs to control communicable disease and improve nutrition, to transforming medical and oral health care. Most importantly, the Foundation remains faithful to its founder's guiding tenet: "To help people help themselves."

The Roots of Partnership

Throughout their respective histories, PAHO and the Kellogg Foundation shared the same goal: to improve lives. But how did these two organizations forge a direct partnership?

That international story begins with a county-level initiative known as the Michigan Community Health Project (MCHP). Sponsored by the Kellogg Foundation, MCHP brought together physicians, parents, teachers, business

leaders, and researchers to improve public health in communities. Harnessing the power of partnership, these concerned leaders helped establish health-screening programs for children, created training opportunities for public health workers, and provided home nursing throughout southern Michigan.

With these successes, MCHP attracted national and, eventually, international attention. In 1942, nine Chilean physicians traveled to Michigan to see the project in action. Later that year, 13 educators from Latin America, in the United States for a Pan American Child Congress, also made their way to Michigan. This shared concern for public health served as a conduit through which the Kellogg Foundation started communicating more regularly with Latin American institutions.

In a report to the Board of Trustees, Dr. Emory W. Morris, the Kellogg Foundation's new president, reflected the benefits of this development: "As we heard from them about health programs in Central and South America, and they heard from us about our programs here in Michigan, comparisons about policies and procedures frequently arose in our conversations."

Fostering greater international cooperation also became a cornerstone of Presidents Franklin D. Roosevelt and Harry S. Truman's foreign policies, both during and after World War II. In the arena of public health, this led to a series of groundbreaking bilateral initiatives with Latin American countries. Known as Special Public Health Services and Inter-American Cooperative Public Health Services, these projects helped build clinics and bring physicians to regions that previously offered few, if any, medical services.

The U.S. State Department promoted similar ideas to U.S.-based philanthropic grantmakers, encouraging them to support projects in Latin America. It was against this backdrop that the PAHO-Kellogg Foundation partnership first emerged.

Food Fuels Thought

From the outset of their relationship, PAHO and the Kellogg Foundation understood that no single aspect of health in South and Central America could be tackled in isolation. The diseases that ravaged so many people in these regions thrived on overcrowding in the cities, lack of services and drinkable water in the rural areas, poverty, and, perhaps most disconcerting, malnutrition.

A Kellogg Foundation report from the period reflects this situation: "In most of the middle class families, meat and milk are luxury foods." The assertion spoke even more clearly about the food available to truly poor families.

Once again, the Michigan Child Health Project fostered positive change from thousands of miles away. An experimental food concentrate developed through the Kellogg Foundation to improve the diet of school-age children proved so successful that Great Britain and then the Soviet Union each adopted it for their own use. Hearing of its success, the Mexican government asked PASB to collaborate on a similar project. Invited to participate by the Kellogg Foundation, the prestigious Massachusetts Institute of Technology (MIT) formed a third active force in a new, powerful front against hunger, setting up food-concentrate research in Mexico in 1943.

How much would undernourished Mexican schoolchildren benefit from a nutrition-packed school lunch? For that matter, how much nutrition was there in a typical Mexican meal? Nobody had ever attempted to answer the question; but "dry flaky skin and swollen gums," noted in too many of the children, gave clear warning of deficiencies. One hundred everyday menu items were packed in dry ice and duly shipped to MIT laboratories for analysis.

Bacteriologists examine powdered milk at the Public Health Laboratory in Tlalpan, Mexico, in 1959. Quality control of powdered milk and other staple foods helped in the fight against malnutrition and disease.

What emerged surprised many of the experts. Several of the Mexican foods proved rich in essential ingredients for growth and maintenance. The ancient custom of soaking tortilla corn in strong limewater increased calcium content by 2,400 percent. Other foods such as protein-rich leche descremada (skim milk), rosita de cacao (dried blossoms from the cocoa plant that yield a distinctive aroma and abundant calcium), and the high iron content in harina de espinacas (spinach flour) pointed the way to using Mexico's own food to improve the nutrition of its people. Indeed, after five months on a diet rich with these foods, the Mexican children in one study were better nourished than children in Michigan farm country.

Filling Hungry Mouths

The all-important integration of diverse activities took concrete form in 1946 when six Latin American countries met to establish the Institute of Nutrition for Central America and Panama (INCAP) in Guatemala. A fully equipped facility, complete with a state-of-the-art laboratory, was established with the help of PASB and the Kellogg Foundation. Here, advances in nutrition kept pace with new developments in agriculture and education.

From this comprehensive facility came many notable innovations and discoveries to nourish the people of Latin America. New varieties of corn that would thrive in very different soil, rainfall, and altitude conditions, and diets to tackle the debilitating disease of kwashiorkor, were particularly important. Another project resulted in effectively iodizing sea salt to prevent goiter, a disease associated with deafness, dumbness, and mental retardation and which, at one time, afflicted as much as 38 percent of the entire population of Guatemala, and a shocking 63 percent of its schoolchildren.

Over the course of the next half century, PAHO and the Kellogg Foundation helped INCAP make numerous other impacts, including "Angeles con Hambre" ("Hungry Angels"), a film that spoke directly to rural people, pointing out the harmful effects of practices like thinning milk with water to make it go farther. The organizations' support also helped INCAP deliver one of its most important contributions to better nutrition: Incaparina, a protein supplement made from cottonseed flour that is still distributed today, not just in Latin America, but wherever protein deficiency is a problem.

The work of INCAP sustained a blow when a devastating earthquake struck Guatemala on February 4, 1976. An explosion in INCAP's main building started a fire that destroyed and damaged equipment and papers. But with timely help from PAHO and the Kellogg Foundation, the laboratories, clinical center, and administrative offices were quickly restored to full functioning. Donations from other institutions helped to re-establish the library's holdings to include 1,322 books and 4,673 journals.

Dr. Nevin S. Scrimshaw, director of INCAP, conducts a survey of endemic goiter in Guatemala in 1954. The disease is linked to deafness, dumbness, and mental retardation.

Today, INCAP continues to bring the best minds in nutrition and virology together with leading practitioners of immunology and applied statistics, to ensure that the potential and energy of Latin America is fueled by good food.

Marching Against Disease

On June 6, 1944, Allied troops stormed the beaches of Normandy, taking the first steps in freeing Europe from the grip of the Axis armies. Coupled with key victories in the Asian theater, this campaign proved to be the beginning of the end of World War II and the most catastrophic conflict in history.

Chapter 1
Origins

In 1944, the human condition experienced a turning point in Latin America as well. Exacerbated by wartime conditions, chronic sanitary problems were making venereal and other communicable diseases particularly acute in Mexico. Making matters worse, reliable diagnostic laboratories – a critical line of defense in the war on disease – were a rare commodity throughout the country. Most were ill-equipped and didn't follow any standardized practices.

Realizing the gravity of the situation, the Mexican government, the PASB, and the Kellogg Foundation together created the Mexican Border Venereal Disease Control Program. Under the stewardship of Dr. Joseph S. Spoto, the PASB field representative, the program took aim at venereal disease among troops stationed along the U.S.-Mexico border. Specifically, it established local diagnostic laboratories in the cities of Ciudad Juarez and Nuevo Laredo, both standardized with technical assistance from the U.S. Public Health Services.

Initial successes generated momentum for a far more ambitious agenda. In fact, the PASB and the Kellogg Foundation established the Demonstration and Teaching Center for the Control of Venereal Diseases in Mexico City. Led by technicians who had completed rigorous courses at the Venereal Disease Research Laboratory in New York, and receiving consulting advice from the world-renowned Dr. John F. Mahoney, this center provided training to key lab personnel from every corner of Mexico.

Armed with new knowledge and abilities, these professionals helped standardize key laboratories in the country's Mexican states. It was a timely achievement which helped health officials reduce the spread of communicable diseases in their country.

In the late 1940s, encouraged by the positive results they jointly attained in improving nutrition and combating disease, officials from PAHO and the Kellogg Foundation eagerly explored future directions for their growing partnership. They were about to choose several avenues that would pave the way to better public health in Latin America for decades to come.

"I will invest my money in people."

W.K. Kellogg
Founder,
W.K. Kellogg Foundation

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Investing in People

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Investing in People

Phoenix Rising

A somber ash blanketed the rubble of Hiroshima and Nagasaki. A trail of ruin stretched from the beaches of France to the bombed out streets of a partitioned Berlin. Graphic evidence of the holocaust from Buchenwald, Auschwitz, and other concentration camps horrified the world during the Nuremberg Trials. The stark message was clear: in the 20th century, no country, not even a continent, could remain an island unto itself.

Such was the state of the world immediately following the armistice that ended World War II. But there was cause for hope as a new spirit of international collaboration emerged from the ruins. On October 24, 1945, the United Nations charter was ratified by the five permanent members of the Security Council, paving the way to early triumphs, such as the Universal Declaration of Human Rights and the brokered ceasefire between Israel and the Arab States.

Against this backdrop, W.K. Kellogg's proclamation "I will invest my money in people," took on a deeper meaning. Indeed, together with PAHO, the Kellogg Foundation supported a host of medical education programs that fostered positive change across international borders.

What started as a process of Latin American health professionals learning from their U.S. counterparts quickly became a conduit for mutual exchange. PAHO policy drove Latin America to forge ahead in the exploration of preventive and community medicine, educational technology, networking, and cost-effective practices.

Overriding this shared commitment to medical education was the goal of finding solutions that fit Latin America, rising from the minds and resources

of that region. Latin American doctors, educators, and health workers themselves would diagnose and treat their own health education systems.

But most of all, the PAHO-Kellogg Foundation partnership in medical education promoted the importance of learning to learn and teaching others so they can teach.

Stronger Than the Sum of Its Parts

Dr. Benjamin Horning, medical director for the Kellogg Foundation, played a large role in solidifying the organization's nascent relationship with Latin America. From 1947 to 1957, he supervised the fellowship grant program, which awarded 456 grants, to 242 physicians, 89 dentists, 70 nurses, 26 sanitary engineers, and 29 specialists in hospital administration and public health.

Demand for fellowships was high and competition was tough. Fellows had to be fluent in English and willing to return to their home countries after their fellowship. Plus, multiple interviews and recommendations went into the selection of every fellow. This painstaking process forged strong bonds that early participants referred to as a "partnership," "a family relationship," and even "a marriage." Once selected, fellows not only had a chance to study at a U.S.-based university, but also enjoyed opportunities to visit top-rated medical institutions across the country.

The Kellogg Foundation also lavished attention on fellows' home institutions, often giving them what was jokingly referred to as a "trousseau" of funding for lab equipment and learning materials.

Upon returning home, former fellows put their new skills to work. They became renowned professors, heads of departments, directors of educational establishments, deans, and ministers of health. For instance, former fellow Guillermo Soberon Acevedo, a biochemist known for his work on diabetes, now serves as executive president of the Mexican Health Foundation. And the Roberto Santos Hospital in Bahia, Brazil, is named for the physician who, after studying at Ann Arbor, Michigan, on a fellowship, went on to run Bahia University's medical school.

Latin American fellowship recipients received advanced training in the United States and applied their new skills in their home countries.

Study grants made through PAHO ran along a parallel track and strengthened the relationship between PAHO and the Kellogg Foundation. Grantees from both programs often teamed up to tackle major health problems in PAHO member countries, and informal exchanges of ideas helped bring advances in health throughout Latin America. Many former Kellogg Foundation grantees even joined PAHO's staff or served the organization as consultants.

Preventive Medicine Takes Center Stage

In the mid-1950s, PAHO's Dr. Myron Wegman, secretary general, and Gustavo Molina, division of public health, helped organize two seminal conferences that put Latin America on the cutting edge of medical education. The gatherings at Viña del Mar, Chile (1955), and Tehuacán, Mexico (1956), together sparked a new emphasis on the powers of preventive medicine.

At the time, preventive medicine and public health courses were taught almost as an afterthought. Classes were tacked onto the end of undergraduate programs, when students were preoccupied with launching a career or entering a specialty.

Conference participants proposed turning this order upside-down so that preventive medicine would be integrated throughout the curricula. This approach would not only lead to new departments of preventive medicine, it would also build inter-departmental synergies.

These changes also were influenced by the work of H.R. Leavell and E.G. Clark, who together published the definitive text on preventive and community medicine – still a staple in medical classes today. Their concept of "levels of prevention" proposed that preventive medicine is vital everywhere along the continuum of wellness and illness. Leavell and Clark believed that disease could be arrested at the "prepathogenic" level, long before symptoms appear. Measures including immunization, proper nutrition, and even social justice could be used to – in effect – treat illness before its actual onset.

Key to the new emphasis on prevention was the recognition that medical knowledge and training are not enough. Education had to go beyond diagnosis and cure, as social, economic, and geographic factors all come into play. And because preventive medicine is evidence based – grounded in observing populations and epidemiology – the old educational model of lectures given by the "sage on the stage" would no longer be sufficient to prepare students. Instead, training had to be problem-based and experiential.

By the 1960s, these ideas came to fruition in Latin America. The medical education curricula at the University of Chile, for example, consisted of:

- the basics of social science and medical action (first and second years)
- field work as part of a multidisciplinary health team in working-class neighborhoods of Santiago (third year)
- principles of preventive medicine in clinical instruction (fourth and fifth years)
- an internship in the health center near the teaching hospital (sixth year)

A natural fit for PAHO, the Kellogg Foundation, and Latin America, the preventive approach has brought decades of positive change. "The progress from concentration on contagious diseases to building up health and well-being has been steady, and the ability of PAHO to retain its absolutely unchanging goal of improving the health of all people seems to me a triumph for everybody," reflected Dr. Myron Wegman.

Centers of Excellence

The Kellogg Foundation fellowship grant program sharpened its focus in response to these fundamentally new ideas. After Dr. Ned Fahs took over the program in 1957, fellowship grants lasted longer and were given to candidates chosen by major universities. The goal was to create centers of excellence in Latin America, with a critical mass of well-trained fellows.

For example, the University of Antioquia in Medellín, Colombia, was included in the group because of the recognized strength of its medical and dental schools. "This is the most impressive response I have seen," wrote Kelly West, a professor visiting from Oklahoma University in 1964. "One of the most encouraging things to me was the interest of the former Kellogg fellows in the broad aspects of teaching and education. They seem to conceive of their technical training and equipment as a means to an end rather than the central focus of their attention."

Even with the shift in focus, the spirit of partnership and mutual education continued. "I will be a better teacher for having been to Medellín," West wrote. By the time the program came to a close in 1970, more than 1,000 professionals had benefited from the fellowship program.

Intensive Training Ahead

A strong example of how PAHO and the Kellogg Foundation incorporated the new theory of experiential learning came in 1969, when the organizations helped develop intensive care units (ICUs) at major teaching hospitals.

PAHO had seen a need to institute the progressive patient care concept in Latin America. This cost-effective treatment method, common today, separates patients not by type of illness, but by the level of care required – intensive, intermediate, or minimum. PAHO analysts cautioned that the point was not to mirror the technological sophistication of ICUs in other developed areas. Rather, the focus was on developing human resources – especially nurses – to provide better care.

PAHO analyzed and picked the sites for the ICUs, and consultants from the University of Michigan joined PAHO in launching the program. By 1969, four sites were up and running, and already gaining a reputation for excellence.

At the University Hospital in Venezuela, there was at first some concern over whether the electrical system could support the unit. Ironically, an examination by the U.S. Public Health Service revealed that the hospital far surpassed U.S. standards. Nurses in this ICU program served for one year then returned to their home hospitals to train coworkers, furthering the cycle of progress.

Visiting professor Eleanor Lambertsen facilitates a round-table discussion with nurses at the University School of Nursing in Santiago, Chile, 1954. Nurses like these would play an increasingly important role in providing better care to patients throughout Latin America.

The degree of interest was so great at the Federal University in Minas Gerais, Brazil, that the nurses and nursing auxiliaries often found physicians and residents slipping into their ICU classes to listen in. The project also met an obvious need in the community, admitting 67 patients in its first two months alone.

Administering a Renaissance

Running ICUs, training nurses, and creating programs that teach students and serve the community at the same time – these changes called for a new breed of hospital administrator. While managers had taken part in fellowship programs, the complex duties involved in running a contemporary hospital called out for sophisticated training programs based in Latin America.

A solution had to be quick, creative and, most of all, cost-effective. One of the problems with having too few budget-minded hospital administrators is that costs quickly spiral out of control.

With these points in mind, PAHO formulated a plan to train renaissance administrators, individuals who were as capable of navigating policy and balance sheets, as they were familiar with patient care. In 1976, with ongoing support from the Kellogg Foundation, PAHO launched the Program of Education in Health Services Administration (PROASA).

From the start, PROASA offered flexible networking and an information exchange system that maximized the available talent and resources at each university. Consulting assistance came from the U.S.-based Association of Health Administration Schools.

The first two PROASAs were established at management schools. The Rio de Janeiro School of Public Administration and the São Paulo School of Business Administration collaborated on one program, while Colombia's PROASA was based at University del Valle in its Department of Social Medicine, with the support of a particularly strong business curriculum.

PROASAs, in fact, were offered in a wide range of formats with myriad benefits. For example:

- Argentina advanced a novel approach by centering its PROASA project at the University of Buenos Aires' renowned School of Architecture and Town Planning, which enabled students to study how building layout and architecture could improve efficiency in health services.
- Peru wove together the del Pacífico University's strengths in systems analysis and the Catholic University of Peru's expertise in management in a PROASA coordinated by the Peruana Cayetano Heredia University.
- Chile, with its well-formulated national health system, enabled PROASA students to perform research on actual administrative problems the country was facing at the time.

A volunteer comforts a child with AIDS in Port-au-Prince, Haiti.

Throughout the PROASA projects, lessons in business, public policy, management principles, organizational behavior and change, information systems, quantitative management methods, sociology, and economics all became part of the renaissance administrator's toolbox. And best of all, PROASA students applied their newly honed skills to solve public health problems around the region.

Case in point: When Colombia nationalized its health system in the mid-1970s, it found a tangle of 720 hospitals, 1,400 health centers, and more than 15,000 service personnel – many of whom had never undergone formal training. The PROASA at del Valle University worked with the Center for Education in Health Administration/Centro de Educatión en Administración de Salud (CEADS) to create a unique distance learning experience that provided lessons based on real-life needs in local areas. The courses incorporated vital middle management skills – everything from stockroom and pharmacy administration to accounting and medical records.

While improved health services administration makes sense from organizational and economic standpoints, it also can foster better public health. For instance, an effective hospital administration can run a meticulous infection control committee, vastly reducing the risk to the population at large.

In 1980, the PROASA program expanded its activities to develop workshops on administration, create portable training programs, and improve the way information was disseminated. The final report in 1986 reveals numerous measurable outcomes. Overall, the program had supported 58 refresher courses in 14 countries, prepared textbooks, granted fellowships, published a directory of health administration education programs, and gathered a multinational network of more than 50 experts to compile a list of teaching materials applicable to the region.

A Joint Venture Into the Real World

Just as hospital administration students used real-world cases to learn and provide community service simultaneously, medical, nursing, and dental students found themselves venturing beyond classroom walls in the 1970s.

New educational theories were sweeping the world, and Latin America was on the crest of the wave. Developments in distance learning, self-paced instruction, and teaching-service integration (also referred to as an articulation) were uniquely suited to the region, with its combination of sophisticated cities and remote rural areas. The democratization of the universities also created such a boom in the student population that teaching by old methods would have been quite impossible.

The newest education techniques also dovetailed with the emphasis on preventive and community medicine that was taking hold. Doctors needed to become part of the real world, and their education would have to prepare them for that constantly changing environment.

Inspired by these developments, PAHO and the Kellogg Foundation built on the work of José Manuel Alverez Manilla in Mexico, and Luiz Carlos Lobo in Brazil, to help create the Latin American Centers of Health Education (CLATES) in 1974. Right from the start, CLATES centers were nearly overwhelmed by student demand. "We cannot accept all the applications…we have become very selective," wrote a consultant in a first-year report of the CLATES-Mexico program, which was based at the country's National University Autónoma. The other main program was

established in collaboration with the Federal University of Rio de Janeiro and was widely known as CLATES-Rio.

A 1978 report on CLATES-Mexico reflects the program's commitment to educational technology: "Among the 7,523 teachers trained, 65 percent have made changes in the design and methodology of teaching." For its part, CLATES-Rio offered self-instruction in a catalog of courses covering cardiovascular, respiratory, and endocrine systems. The center also produced audiovisual material, a health administrator training system, and simulations of clinical problems teachers could use to create "real-world" lessons.

The CLATES centers eventually evolved into the Nucleus for Educational Technology in Health (Rio de Janeiro) and the University Center for Educational Technology in Health (Mexico City). Still active, they offer groundbreaking courses that combine the best of education theory and technology.

The CLATES dental program was just as prolific, sending hundreds of professors to workshops. "With instruction geared more to prevention than to cure and with methods capable of making the manpower in training more critical and creative…the CLATES workshops have been one of the greatest successes in the preparation of dental manpower in this period," declared the final report.

Nursing Leadership

During the first half of the twentieth century, nursing had been somewhat of an orphan profession in Latin America, usually filled by religious orders. But physicians returning from study abroad had experienced the benefits of working with skilled nurses and wanted the same quality in Latin America. During the 1950s, for example, two former Kellogg Foundation fellows established new schools of nursing in Recife and Porto Alegre.

More widespread change emerged when nursing professionals saw the success of the CLATES centers and sought a similar program for their profession. The CLATES-Nursing program quickly branched out in unanticipated directions, creating new alliances and leaders in the field. It emphasized teaching services, articulation, and a modernized nursing curriculum, incorporating educational technology throughout. "Learning was not based on memorizing, or on rhetoric, but on problem solving," said one PAHO consultant.

Like nurses themselves, the programs had to be responsive, mutually supportive, and interact well. Between 1975 and 1979, 11 subcenters

were set up, each filling specific local needs. At the three-year mark, PAHO analyzed the programs and encouraged each to develop its own area of expertise. Costa Rica, for instance, concentrated on nursing for maternal and child health. Peru focused on preparing instructional material.

Some of the subcenters implemented through this project became influential in nursing education. Moreover, many nurses became individual leaders by obtaining grants that fostered even more positive change in their home countries.

Overall, the impact throughout Latin America was tremendous, as reflected in comments made by a professor from the University of North Carolina-Chapel Hill who visited Colombia's nursing schools in 1985:

"Students are introduced to community health in their first semester [and] are also getting an education in research and evaluation techniques that would appear to equal or surpass most bachelor-level nursing programs in the United States. This visit convinced me that Colombia is a forerunner in planning for creative use of nurses in primary health care delivery."

Everyone a Teacher

In the mid-1970s, PAHO and the Kellogg Foundation also helped establish the Latin American Education and Health Program, which in turn created the Nuclei for Research and Development in Education and Health (NIDES).

Made up of representatives from the local medical school, the health ministry, and social security, each nucleus strove to promote a stronger connection between education and service delivery. NIDES also operated at the national level as focal points for training teachers, developing instructional materials, and disseminating biomedical research.

"The programs have created a critical amount of leaders acting within formally established teaching and service institutions," stated a 1983 PAHO field report. "The progress of health-service integration and education are helping to demystify the idea that training is an exclusive function of the university; the service professional can and should teach."

Today, the goals of helping people learn how to learn and teaching others so they can teach remain as critical as they were 60 years ago. Fortunately, PAHO and the Kellogg Foundation have provided a compass to guide these pursuits, proving time and again that investing in education and investing in people can be one in the same.

Dr. Lourdes de Freitas Carvalho, an early recipient of a Kellogg fellowship, transformed hospital administration procedures and medical training in her native Brazil and beyond.

"It is not unrealistic to say that dental education in Latin America was never the same after [PAHO and the Kellogg Foundation partnered in this field]."

Dr. Mario Chaves
Chief Dental Officer, PAHO

Chapter 3:
Oral Health: A Legacy of Smiles

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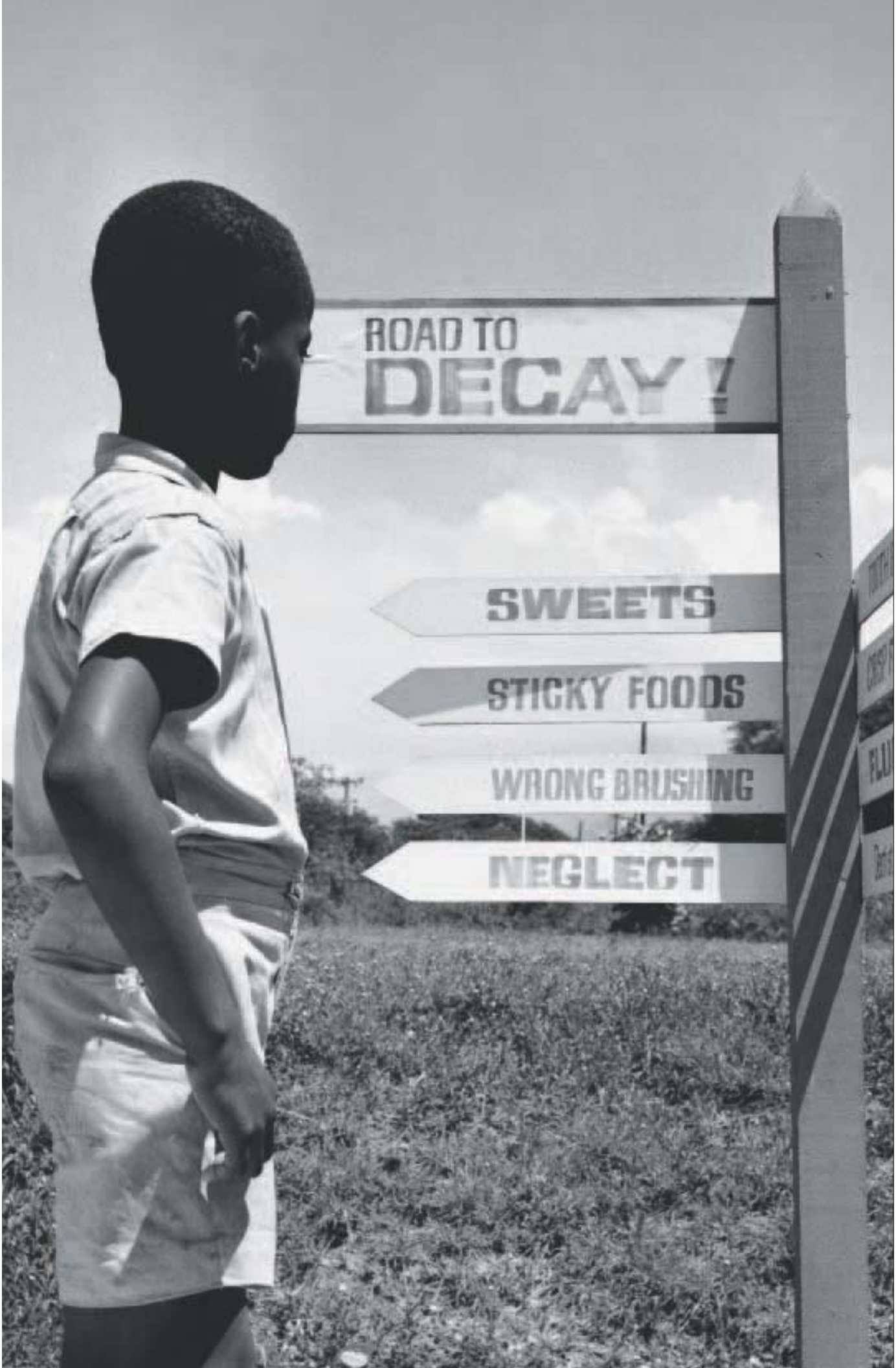
ROAD TO
DECAY !
SWEETS
STICKY FOODS
WRONG BRUSHING
NEGLECT

Oral Health: A Legacy of Smiles

A Rocky Road and a Fallow Field

During his groundbreaking tour of Latin America in the mid-1950s, Dr. Mario Chaves of Brazil completed some tough traveling. PAHO's newly appointed Consultant in Dental Education – a position made possible with a grant from the Kellogg Foundation – had barely more than a year to survey the state of oral health throughout South America and the Caribbean. But it was a whirlwind trip that led to decades of positive change.

The Kellogg Foundation had been active in oral health since the end of World War II, providing numerous Latin American dentists with fellowships to study in the U.S. In fact, the organization is often credited with helping to bring public health dentistry to the region, as nearly all of its limited number of public health dentists during the 1950s had graduated from the University of Michigan School of Public Health.

A former Kellogg fellow himself, Dr. Chaves was often pressed into service as an adviser and teacher during his travels as a PAHO consultant. His field reports from 1955 paint a dismal picture. With few dentists in remote rural areas, people relied on practitioners with little or no formal training during emergency situations. And it was far more common for a dentist to pull teeth than to fix them. When fillings were performed, they were often done badly, leaving so much decay that they had to be redone in a matter of years, if not months. Even in the sophisticated, well-off parts of urban areas, dental care was geared more toward damage repair that was both expensive and time-consuming – rather than toward prevention.

"It can be said that national dental plans practically do not exist," Chaves wrote. Services for children were almost impossible to find. Dentists and

national health administrators were at odds. Auxiliary workers such as hygienists had little training, and dental chair side assistants were in the same state as elsewhere in Latin America – not often practiced, trained for, or respected. The schools he observed appeared to offer little potential to change the situation: "In many cases, the student learns operative procedures by trial and error on his first patients."

Such lessons came at painfully high costs. Oral infection and disease threatened overall health, exacerbated problems such as malnutrition and speech difficulties, and jeopardized the health of babies in their mothers' wombs.

Gathering the Seeds of Change

Dr. Mario Chaves, here with his wife Rosita, retired in 1985. As PAHO's Consultant in Dental Education during the 1950s, Dr. Chaves contributed insightful observations on oral health that provided the basis for sweeping change.

Dr. Chaves and other PAHO officials knew the situation called for something more substantial than a piecemeal approach. So they focused on creating self-sustaining systems, starting with schools that would teach more seasoned doctors how to train prospective doctors more effectively. Solutions also had to be regional in nature – applicable to all the varied cultures and resources throughout the area. And dentists in Latin America needed to convene, communicate, and co-create ways to make their work more relevant to the people they wanted to serve.

The ideas that emerged from those months of observation became the seeds of change that eventually grew into majestic advances in oral health for Latin America. In the 25 years following Dr. Chaves' tour, for example, enrollment in dental schools in Mexico would more than quadruple. And in the 50 years since the initiation of the Kellogg Foundation's involvement, water or salt fluoridation would help substantially reduce the number of cavities in Latin America.

But how did such enormous advances in oral health come about? To meet the needs identified in Dr. Chaves' reports, PAHO adopted a four-point plan that became the foundation of a sweeping agenda for oral health in Latin America. Simple, direct, and best of all, possible to achieve, the overriding intention was to integrate dental health into programs that strengthen national health delivery systems, education, and training. Specifically, PAHO called for:

- a regional center for training in public health dentistry
- an emphasis on prevention and public health within dental education
- better training for dental nurses and auxiliary personnel

◆ stronger national oral health programs, including cavity-prevention measures such as fluoridation

Sowing Seeds in São Paulo

To help create a Latin American regional center for public health dentistry, PAHO and the Kellogg Foundation overcame many obstacles and examined carefully the potential and interest of existing schools in harboring such a facility. Their combined efforts were so successful that the center became a self-sustaining entity within a mere two years.

With funding from the Kellogg Foundation, the new regional center – based at the University of São Paulo School of Public Health – offered its first classes in 1958. To maximize the school's impact, PAHO provided grants to nine dentists who also were senior health officials in their home countries. By 1959, students could choose between a two-month course in public health for working dentists, or a one-year master's level program.

To call the center seminal would be an understatement. Between 1958 and 1962, more dentists graduated from its programs than had graduated from all Latin American schools of public health since 1937 – combined. During this time, 85 dentists from 19 countries graduated – 42 of them studying under PAHO or WHO fellowships.

This experience reaped rewards for the entire region. Equipped with their new knowledge and skill, many of the center's graduates returned to their countries to lead national oral health programs, or to teach. They took with them the recommendations in the original PAHO report and started putting them into play.

New Chapters in Dental Education

The dearth of textbooks and teaching materials was a major obstacle to advancing public health dentistry in Latin America. Fortunately, two doctors involved with the regional center in São Paulo helped fill this void with milestone texts. Dr. Chaves wrote the "Manual of Dental Public Health," a two-volume set on theory and practice, and Dr. Alfredo Reis Viegas composed a manual on preventive dentistry.

In 1962, PAHO had the public health dentistry manual translated from Portuguese to Spanish and the Kellogg Foundation had it printed. Updated and republished in 1977, the text remains influential to this day, with thousands of copies having been distributed throughout the region.

The PAHO-Kellogg Foundation partnership also provided a conduit for creative thinking that prepared the region for the fundamental philosophical shift in dental education and practice that was beginning to emerge. In Latin America, as in the rest of the world, dental education wasn't structured toward integrating oral health into national delivery systems. But in 1960, Dr. Philip E. Blackerby, then head of the Kellogg Foundation's dental health program, challenged schools to create departments of social dentistry. The goal was to inspire individual dentists to deploy public health principles of prevention, to integrate services, and to promote concern for the overall good.

To get oral health practitioners in Latin America thinking on this new track, PAHO organized three regional seminars, funded by the Kellogg Foundation. "It is not unrealistic to say that dental education in Latin America was never the same after," reflected Dr. Chaves, who had become chief dental officer at the World Health Organization (WHO) in Geneva, Switzerland. Indeed, these three seminars cemented the importance of making preventive dentistry a cornerstone of dental curricula.

This success was a product of foresight and planning. A PAHO team toured 17 schools to identify the issues that participants wanted addressed at the seminars. The response was remarkable. The first seminar, which took place in Bogota, Colombia, in 1962, gathered deans and leading teachers from 18 dental schools, as well as observers from 14 countries. The second (Mexico, 1964) had participants from 18 schools; the third (Brazil, 1966) drew leaders from 41 schools.

To maximize the brain trust gathered, PAHO and the Kellogg Foundation helped the Latin American Association of Dental Schools (ALAFO) hold conferences immediately following each of the three seminars. Many participants attended both colloquia. The Kellogg Foundation also enabled ALAFO – which was headquartered in Guatemala – to operate a regional office in Rio de Janeiro, next to an office of the Pan American Federation of Associations of Medical Schools. This arrangement led to a closer integration of medical and dental education.

Making Strides in Medellín

PAHO and the Kellogg Foundation also pledged support for any dental school willing to set up the first department of preventive and social dentistry in Latin America. It's no coincidence that the call was first answered by a graduate of the regional center for public health dentistry in São Paulo. Dr. Dario Restrepo opened the new department in 1962 at the University of Antioquia in Medellín, Colombia.

This institution was a perfect setting. It had been receiving funding from the Kellogg Foundation for years and was considered one of the best in Latin America, according to Ned C. Fahs, then head of the Kellogg Foundation Latin American program. The school also was unique in its ability to conduct fieldwork in a poor community on the outskirts of Medellín. This fieldwork provided students with opportunities to learn, first-hand, about the positive benefits of social dentistry.

In addition to transforming approaches to dental education, the program also addressed another of the four recommendations by training auxiliary workers with expanded duties in a manner then new to the region. In fact, fieldwork demonstrated and pushed forward the concept of "four-handed dentistry," which emphasized a team approach to patient care. Overall, the pioneering project at Antioquia served as a model and stimulus to preventive and social dentistry programs throughout Latin America.

Preventive dentistry, modern methods, and a community orientation were vital components of the Innovations in Dental Teaching and Services Program – a PAHO-Kellogg Foundation initiative that ran from 1977 to 1981.

The Next Generation of Innovation

In their field reports from 1962 to 1972, PAHO officials regularly noted that, despite a large increase in the numbers of dentists, the dentist-to-population ratio remained low. And while preventive dentistry was more widespread, many dental schools and practices still weren't using modern methods. Further, some dental departments operated in isolation, meaning students weren't imbued with the need to improve the quality and availability of care for the surrounding communities.

The PAHO-Kellogg Foundation partnership would once again prove critical to finding the solutions. In 1976, the two organizations supported a meeting at the University of Campinas dental school at Piracicaba, Brazil, where participants helped forge a framework for the Innovations in Dental Teaching and Services Program. From 1977 to 1981, 16 Innovations projects in 10 countries would help change the landscape of dental education and practice in Latin America.

The accomplishments were indeed impressive. The Innovations project at the University Cayetano Heredia in Lima, Peru, for example, established a dental school with a strong orientation to community service and primary care. The school combined training and services, bringing students into direct contact with the community so they could receive on-the-job training while providing people with the services they needed. University programs

at Saragoza, Piracicaba, Brazil, and Xochimilco in Mexico City also created model programs for dental students, along with services to reach low-income and remote communities.

The Innovations program generated significant advances in dental technology, which is represented in the teaching equipment shown here at the University of Pharmacology in São Paulo, Brazil, 1955.

The Innovations program emphasized developing techniques and practices that would be scalable to the vast differences in services and resources throughout Latin America. Participating dentists learned to do more with less and to aggregate their strengths with those of teachers, public health workers, and local clinics. As a result, the Innovations program not only reduced the cost of dental services but enabled care to be provided to more people than ever before.

The use of auxiliary personnel and simplification of procedures in practice were equally important on the Innovations agenda. And in education, the program helped introduce self-paced learning material and competency-based curricula.

The Innovations program also inspired new technological advances. In clinics in low-income communities on the outskirts of Belo Horizonte, Brazil, for instance, an Innovations team developed equipment that proved so successful it was later commercialized by the dental equipment industry.

Catalysts for Collaboration

During the late 1970s and into the 1980s, the PAHO-Kellogg Foundation partnership fostered a new sense of networking in the realm of oral health in Latin America that led to greater collaboration and better communication.

An example of this new mantra emerged from an international colloquium held in 1977 by PAHO and the National Academy of Sciences Institute of Medicine. With chapters written by different world experts on the subject, International Dental Care Delivery Systems: Issues in Dental Health Policies demonstrated how collaboration could yield impressive results.

In the 1980s, what was learned and accomplished within the Innovations program spread widely across Latin America through a newsletter, supported by the Kellogg Foundation. The organization also helped support production of an index of dentistry periodicals in Spanish and Portuguese. And in 1984, a new publication called *Redes* – which means "networks" – linked all Kellogg Foundation-assisted projects in Latin America and enabled them to share information.

By the mid-1980s, oral health programs in Latin America had advanced to the point where they could have a positive influence elsewhere in the world, as evidenced in the Kellogg-funded series of traveling seminars held in 1986. Seven dental educators traveled to institutions in the region to observe their innovative dental curricula. The visits also provided a blueprint for the future, as the teachers reported on the need to integrate disparate topics such as anthropology and sociology into dental education as a means to improve community-based dental services.

The growing importance of collaboration also heightened the role of dental health workers, who helped make a difference with projects such as Plan Sierra in the Dominican Republic. This was an integrated program for construction of rural medical clinics, where more than 24,000 children received dental care for the very first time.

Moving Forward With Fluoridation

Improving dental education clearly has the potential to exponentially improve the future of oral health. But these impacts take time to reveal themselves and can be difficult to measure.

There is nothing abstract about reducing cavities by up to 85 percent, an accomplishment that grew from arguably one of the most practical and effective vehicles ever supported by the PAHO-Kellogg Foundation partnership: fluoridation.

Water fluoridation programs supported by the PAHO-Kellogg Foundation partnership had to overcome political and scientific challenges before achieving great success.

But it wasn't easy, especially when it came to water fluoridation, which requires an intricate coordination of resources – from the political to the scientific. Engineers must work with the water supply and distribution, chemists must regulate the formulations, and evaluation at every stage is crucial to ensuring that no harm is done and that the program is working.

In the late 1960s, PAHO and the Kellogg Foundation provided the technical assistance and funding needed to overcome these challenges and make water fluoridation a reality in Latin America. Between 1966 and 1971, these organizations supported training for more than 500 sanitary engineers from 24 countries. The PAHO-Kellogg Foundation partnership also created a communications program and distributed technical publications that kept graduates informed about the most cutting-edge developments in the field. Further, 11 Latin American laboratories received equipment that enabled technicians to measure the amount of natural fluoride in water.

By 1971, these efforts had helped 14 Latin American countries establish national fluoridation programs that were reducing the number of cavities that afflicted their citizens.

A Solution Suited to Latin America

Despite the success of water fluoridation efforts, problems unique to the region often blocked further progress. The elegant solution of fluoridating water supplies is reliant on a safe and ready water supply – something that was lacking in many areas in Latin America. Consequently, this technique often failed to reach outlying, rural, and disadvantaged areas – areas that most needed improved oral health.

A breakthrough came at the newly formed Department of Social Dentistry at the University of Antioquia in Medellín. With PAHO acting as a catalyst, the department joined with the Department of Nutrition, the Colombian government, and the U.S. National Institutes of Health in a field study of another vehicle for cavity prevention: fluoridation of table salt.

The university painstakingly monitored a total of more than 27,000 children divided into four groups between 1964 and 1972. One group had access to fluoridated water; two had access to fluoridated salt in different forms; and one – serving as the control group – didn't have access to either. At the end of the study, cavities in the three fluoridation groups went down by 50 percent, effectively showing that the salt method could be as effective as the water one – but with fewer difficulties.

To share these results, PAHO and the university brought international experts to Medellín in 1977 for a Kellogg Foundation-sponsored seminar. An outgrowth was the publication of *Salt Fluoridation: An Alternative Way to Prevent Dental Cavities*. In 1982, at a conference in Vienna, scientists from Medellín also shared results with the international community. The conference was sponsored by the Kellogg Foundation, PAHO/WHO, and the International Dental Federation. The Medellín study reinforced the results of trials in Hungary and Switzerland, and a chapter on the research was included in *Proper Use of Fluoride for Human Health,* which was published shortly after the conference.

A Partnership With Bite

With proof of the effectiveness of salt fluoridation in hand, PAHO and the Kellogg Foundation took another step forward in 1986, pioneering three salt fluoridation projects in Mexico, Costa Rica, and Peru. And between 1996 and 2000, the PAHO-Kellogg Foundation's joint Multi-Year Plan to Implement National Oral Health Preventative Programs generated a wide range of accomplishments in eight Latin American countries –

everything from gathering statistics on preschool nutrition to analyzing fruit in the marketplaces for fluoride levels.

The Plan also had fostered greater coordination and collaboration, enabling more scientists to gain critical training in baseline studies and chemical and biological monitoring. As a plus, new, strong partnerships in the United States evolved with PAHO's Collaboration Center in San Antonio, Texas, and at the Centers for Disease Control and Prevention.

The programs became fully sustainable successes in five of the eight countries. Jamaica's cavity reduction, at 85 percent, is the most dramatic; but even the "smallest" improvement, of 40 percent in Uruguay, is striking.

With these successes in mind, it's no wonder that when it comes to high-level oral health planning, PAHO and the Kellogg Foundation continue to play a leading role on the world stage. In 2001, for example, PAHO's Dr. Saskia Estupiñan-Day delivered the keynote address on fluoridation at the 7th World Conference on Preventive Dentistry in Beijing, China.

Whether improving education, increasing access to services, or disseminating proactive prevention plans, the strategic PAHO-Kellogg Foundation partnership has indeed left a lasting legacy of healthy smiles in Latin America.

PAHO's salt fluoridation initiative has created stronger teeth – and healthier smiles – in Latin America's more remote regions.

"Governments have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social measures."

The Declaration of Alma-Ata
(Article V)

Chapter 4:
All for Health and Health for All

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All for Health and Health for All

Architecture for a New Era

In 1963, the Kellogg Foundation agreed to fund an initiative that would strengthen and deepen its bond with PAHO, enshrining the commitment to Pan-American health in concrete, glass, and steel. PAHO's bold new headquarters in the Foggy Bottom area of Washington, D.C., would showcase the latest thinking in architecture and reflect the scope and importance of this growing organization's work.

When the Pan American Sanitary Bureau first emerged in 1902, it had an annual budget of $5,000 and operated out of a single room of less than 400 square feet. By the early 1960s, PAHO's budget had risen to millions of dollars, fueling hundreds of diverse health projects all over the Americas. Its accommodations, however, had not kept pace. Although PAHO's U.S. staff had moved into three townhouses in downtown D.C., they desperately needed more space and a permanent headquarters building.

Even as PAHO sought an architect with bold new ideas, the Kellogg Foundation was finding an innovative way to advance the necessary funds. The Kellogg Foundation does not usually fund construction projects. Instead, it provided an interest-free $5 million loan that PAHO member states would repay via 20 annual allocations to the Special Fund for Health Promotion. By plowing these resources back into numerous vital programs, this creative approach accomplished far more for the people of the Americas than a traditional loan or grant ever could have.

Dr. Abraham Horwitz, PAHO director, received the check from Dr. Emory W. Morris, president of the Kellogg Foundation, on August 23, 1963.

Construction got under way immediately, on land donated by the U.S. government, near the Lincoln Memorial and the then-projected site of the John F. Kennedy Center for the Performing Arts. The question, "What sort of building would take shape for this prestigious new tenant?" was soon being asked around town.

A Soaring Achievement

An international competition to choose the most original design had been won in 1961 by a Uruguayan architect, Mr. Roman Fresnedo Siri. Siri had won acclaim for designing major civic buildings throughout South America, including offices and hospitals. He also had a passion for the ocean, and even used his talents to design racing yachts.

Uruguayan architect Roman Fresnedo Siri won the commission to design the PAHO building in 1961. His original approach helped create a prestigious yet practical landmark for PAHO in Washington, D.C.

Siri's spirit and originality did not disappoint. From its earliest days, architects and passersby alike were intrigued by surprises in the buildings' construction. Rising dramatically from the shore of the historic Potomac River, two distinct structures dominated the triangular block of land: a circular council chamber and an 11-story crescent-shaped secretariat. By December 1964, texture and pattern had begun to emerge, giving each building a distinct character. Geometric diamond shapes decorated the outside of the council chamber, visually played off against the elegant vertical lines of the larger secretariat building.

Gradually, other elements were added: reflecting pools, white columns, and slim concrete fins that gave the buildings a soaring quality. Just over two years after work began, the completed secretariat was ready to house hundreds of staff members in approximately 170,000 square feet of space, furnished with marble, paintings, sculptures, and other gifts from PAHO member nations. The council chamber alone could accommodate 400 delegates within its circular walls.

The new PAHO headquarters was officially opened on September 27, 1965. Eminent figures from the fields of health, nutrition, and sociology had journeyed from all over North, Central, and South America for a week of ceremonies and celebrations.

John W. Gardner, then U.S. Secretary of Health, Education and Welfare, expressed the feelings of many guests who had dedicated their careers and

talents to improving public health. "Health is closely akin to beauty," he said. "I find it quite fitting that a building dedicated to the ideal of better health for the people of the Americas should express that beauty in its form and design."

Thanks to the W.K. Kellogg Foundation and the tireless efforts of PAHO's leaders, one of the world's most venerable international health organizations would now operate from a building as visionary and inspiring as its many programs.

Almost 40 years later, in 2002, PAHO's centennial celebrations were held at these headquarters. "This 100-year celebration represents the best of mankind, reaching across borders, [and] caring about people and their health," said Dr. David Satcher, then U.S. Surgeon General. "It is one thing to have a vision, but another thing to care. That's the spirit of PAHO that has meant so much."

Opening a Decade, Opening Minds

This kind of acceptance, even embrace, of the PAHO vision wasn't always a given. As the organization's focus began to shift in the 1970s to primary care, teaching-service interaction, and preventive and community medicine, PAHO and the Kellogg Foundation staff discovered that the forefront wasn't always the most comfortable place to be.

Many students who entered medical school in the early 1970s remember the near-hostility that faced those who pursued the aims of public health. Cesar G. Victora, of the Federal University in Pelotas, Brazil, and an international editor at the *American Journal of Public Health*, painted a moving picture in an article celebrating PAHO's centennial: "Public health was regarded as a potentially subversive activity in those days… High-technology, tertiary inpatient care was the number one priority." Many health officials and professors derided attempts to deliver health care outside private, fee-for-service clinics, often labeling such efforts "mass medicine."

"However, there was one refuge in this high-tech world," Victora wrote. "Our library received all of PAHO's publications, free of charge. It was there that, along with a few interested colleagues, I first found evidence that a different approach to medicine and to public health was possible." Victora and his colleagues formed a public health interest group and ordered many articles from BIREME, the regional library established with support from PAHO and the Kellogg Foundation.

Victora summed up PAHO's contribution: "Most public health practitioners from Latin America, myself included, are forever indebted to PAHO for opening our minds to the complex world of the determination of health status and showing us how to organize a collective response to the problem of health inequities."

Visionary Collaborations

Such reflections also were occurring to many others who comprised the new breed of Latin American medical professionals. This extraordinary shift in the principles of public health emerged more clearly in 1972 at the Third Special Meeting of Ministers of Health of the Americas, convened by PAHO and held in Santiago, Chile.

Anticipating the "Health for All" movement by six years, the participating ministers advanced the unifying ideas that would help shape world health issues into the millennium: Health is a human right, and governments are responsible for ensuring equal access to health services.

Yet this wasn't a call for citizens to simply make demands of their governments. The ministers defined health as a responsibility as well as a right. Good health was not a gift bestowed by a doctor or a government, but a dynamic collaboration of the medical and social worlds, the community, and the individual.

Delegates also made it clear that action in the sphere of health alone is not enough. This was a time of growing environmental awareness, and the meeting's final declaration stressed an ecological vision in which quality of life resulted from a continuous favorable exchange between humans and their environment.

Workforce development would form the cornerstone of comprehensive health care. Specialization had concentrated physicians at the top end, leaving a critical shortage of auxiliary workers and technicians. More of these needed to be trained, but that training had to be flexible so their skills could be leveraged across professions.

The universities – where PAHO and the Kellogg Foundation had played a major role – would need restructuring to be responsive to this new order. They would provide real-life situation training for all levels of health professionals and form a vital link in community health. Their involvement would cut across departments: Research, data collection, information science, business administration, and even architecture would together enhance the medical mission.

A natural evolution of principles long in force at PAHO and within the Kellogg Foundation, the concept of extending coverage anticipated the coming strides in medicine and public health.

A Defining Moment

The organizations' joint emphasis on shaping education put them ahead of the curve. The Network of Community Oriented Educational Institutions for Health Sciences – a group formed at a PAHO conference and supported by the Kellogg Foundation – reflected this point in its document titled *Leadership for Change in the Education of Health Professionals:*

"Recognition that the education of health professionals – medical education in particular – was not producing graduates with the skills and motivation to meet the health needs of communities first began to grow in the 1960s… Experiments in medical education began to take root in several countries in the 1970s, all sharing the general goal of attempting to reorient medical education to make it more responsive to the needs and expectations of the people."

Elpidia Daza, a Kellogg fellow in pediatric nursing (1952-1954), receives her diploma and key from Dr. F. Taylor Peck, cultural affairs officer of the American Embassy in Bogotá, Colombia, 1955. Medical education was gradually shaped to meet the needs of local communities.

Perhaps nowhere were the experiments in medical education more pronounced than in Latin America. Distance learning, educational technology, behavioral objectives, self-paced instruction, and teaching-service integration were far more than fads. They were a response to the unique needs of the region – the need for well-trained auxiliary workers, the need to reach those in remote rural areas, and the need to serve communities.

One of the Kellogg Foundation's long-term goals from the beginning had been to ensure that the entire population of Latin America has access to adequate health care. The organization's 1976 publication, *Strategies for Improving Health in Latin America,* describes the attributes of an effective public health system:

- Prevention goes beyond a safe environment and immunizations. It has a positive aspect based on people's ability to change and to take responsibility for their health.

- Access refers to the ability to overcome distance and financial barriers.
- Continuity infers that care should come not only when people are sick, but throughout the course of their lives.
- Quality isn't dependent on having the latest high-tech medical equipment. In the equity-based view, quality means using available resources to ensure the largest number of people receive the greatest possible benefit.
- Effectiveness means securing programs that deploy medical auxiliaries and community health workers in ways that protect Latin America's fiscal resources.

Closer to Utopia

In the worldview of the PAHO-Kellogg Foundation partnership, health education and health delivery are intertwined and equal in priority. Networking is a crucial strategy, and, properly leveraged, provides great returns: exchange of ideas, a diversity of models with increased potential for replication, and dissemination of success stories.

At the Fourth Special Meeting in 1977, the health ministers of the Americas met again to analyze the region's progress. The document produced, "Extension of the Coverage of Health Services Using Primary Care and Community Participation Strategies" enunciates principles that not only underpinned the "Health for All" movement but remain valid today.

It resolved to incorporate primary care and community participation into PAHO as basic strategies. And it called for the development of administrative, educational, and technological advances in line with these programs. To make this approach work, countries, foundations, and organizations would have to break out of their comfort zones and find ways of working together.

The resolutions also directed that the ministers' conclusions be presented in 1978 at the International Conference on Primary Health Care, held at Alma-Ata, Kazakhstan, in what was then the Soviet Union. The meeting was "one of the defining social events of our time," reflected current PAHO Director Sir George A.O. Alleyne in a 1998 speech at the Symposium on National Strategies for Renewing Health for All.

Article V, the most frequently referenced portion of the Declaration of Alma-Ata, underscores the magnitude of what delegates were striving to achieve:

"Governments have a responsibility for the health of their people which can be fulfilled only by the provision of adequate health and social measures.

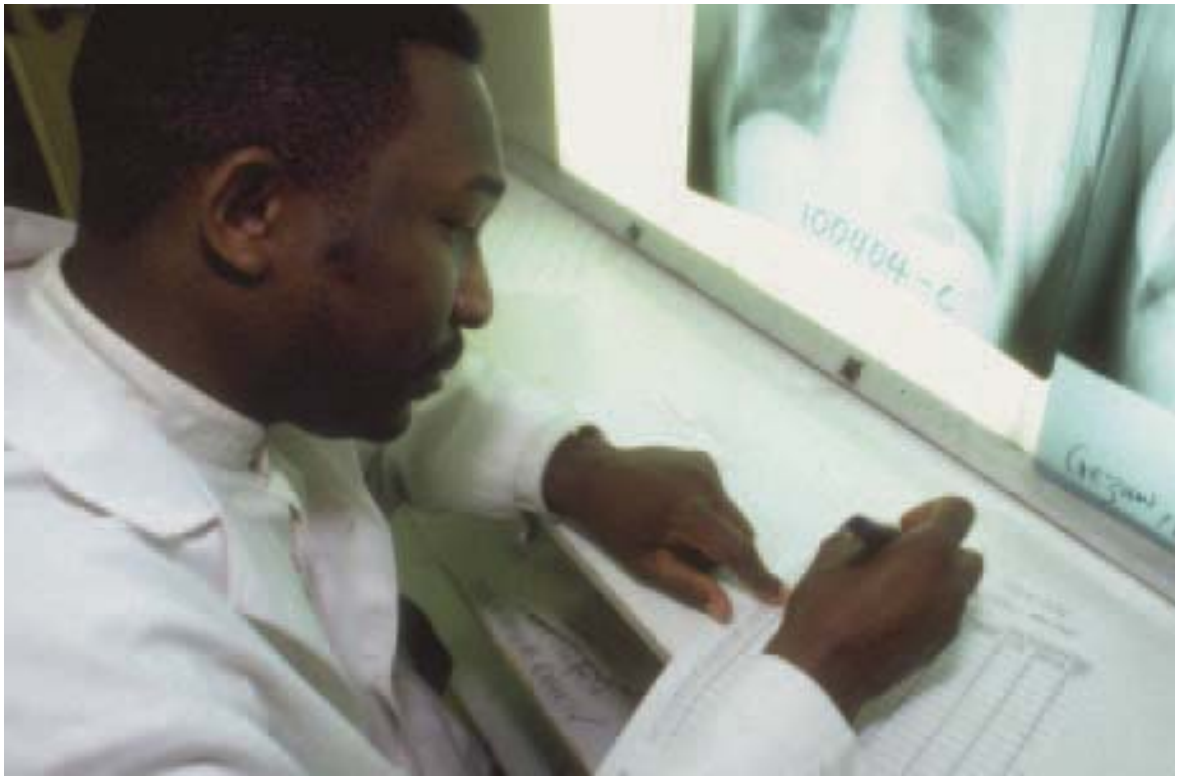
A main social target of governments, international organizations and the whole world community in the coming decades should be the attainment by all peoples of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life. Primary health care is the key to attaining the target as part of development in the spirit of social justice."

The basic, albeit radical, concept of "Health for All" – and the one most debated as to meaning – is that health is a human right. Other articles addressed inequality, economic and social development, and the role of education and prevention in creating this world of equity in health.

Of course, 2000 has come and gone. The utopian goal of ensuring adequate health care for every human being is still that – utopian. "Health for All" has thus become a motivating vision rather than a program with a deadline.

Yet when examining how PAHO and the Kellogg Foundation helped reshape the concept of public health in Latin America, it becomes clear that the gap between vision and reality has narrowed significantly. Their collaboration, and the enterprises their teamwork has inspired, have done more in the quest to make "Health for All" a reality than either organization could possibly have achieved alone.

Administrative, educational, and technical advances under the "Health for All" movement have helped millions more Latin Americans to claim their right to good health.



"What was needed was a new paradigm for the community."

Dr. Francisco Tancredi,
Regional Director for Latin America and the Caribbean, W.K. Kellogg Foundation

Chapter 5:
A Global Vision Takes Root

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A Global Vision Takes Root

The ABCs of TSA

It didn't take long for the rallying cry "Health for All" to echo throughout the world. After the historic 1977 conference in Alma-Ata, delegates returned to their homes to convince presidents, prime ministers, kings, queens, and other heads of state of the mission's urgency. Soon, the "Health for All" movement would serve as a common bond among nations – even those with the most sharply contrasting social, economic, and political systems.

Ironically, this global vision would first gain a foothold at the local and regional levels. During the decades that followed, communities would indeed serve as strategic battlegrounds in the war against poor health. And true to form, PAHO and the Kellogg Foundation stood together at the forefront of putting theory into practice.

The connection between communities and public health had actually drawn attention in the mid-1950s. The PAHO-organized conferences at Viña del Mar and Tehuacán (see Chapter 2) underscored the desperate need for a more proactive approach. This transformation could not come too soon. Whether they lived in the teeming cities or in scattered rural areas, many Latin Americans had little or no access to preventive medicine.

In the 1960s, some medical schools responded by working directly with health centers that served specific communities. This development created rich soil for an innovative concept to grow: Teaching Services Articulation (TSA). In the publication *Strategies for Improving Health in Latin America,* the Kellogg Foundation described TSA as a system through which both professional education and health services worked together to achieve

their respective goals and offer people in the immediate community access to better care.

Within the numerous TSA projects that emerged during the 1970s, university teachers, researchers, experienced professionals, and students collaborated to introduce new ways to improve public health. The ivory tower of medical practice, which had been too high and smooth for many to climb, was crumbling. Many of its inhabitants, long accustomed to operating from lofty heights, were now finding their feet firmly planted in the real world.

Those entrusted with public health became increasingly concerned with primary health care – promoting wellness, not simply containing sickness. Both PAHO and the Kellogg Foundation emphasized prevention in addition to treatment, equal and universal access to quality health services, and more contact between health care providers and the populations they served.

By advancing these ideals, TSA projects ushered in significant change in the way health care was taught and delivered. Yet this was just the beginning of PAHO and the Kellogg Foundation's focus on the community.

Power to the People

As the 1980s unfolded, Latin America became a cauldron of political and social change, with the region's military regimes giving way to more democratic forms of government. Argentina's autocratic dictatorship sank under its own excesses and democracy was restored in 1983, marked by the election of Raúl Alfonsín. In 1985, elected Peruvian President Fernando Belaunde completed his term in office – only the second time that had happened in 40 years. Three years later, Brazil adopted a new democratic constitution, ending decades of military control. And in Chile, General Augusto Pinochet was voted out of office in 1989.

When democracy took hold, many Latin American health officials looked at their systems and realized they weren't designed to provide universal access to primary health care. Decentralization and community participation were missing elements that would need to be reintroduced after years of enforced compliance with the diktats of military rule.

To help spark such fundamental change, PAHO approved a 1986 resolution that called for the "development of the health services infrastructure with emphasis on primary health care." In 1988, the XXXII Meeting of the PAHO Directing Council built another cornerstone with Resolution XV, which urged members to:

- "Continue and to strengthen their work of defining policies, strategies, programs, and activities for the transformation of national health systems through the development of local health systems."
- "Ensure coordinated participation in the strengthening of local health systems by all government institutions responsible for the delivery of services, especially the social security administrations and the international cooperation agencies."
- "Place special emphasis on the provision of resources and decentralization to strengthen the operating capacity of local health systems, and on specific programs for dealing with priority health problems."

Resolution XV inspired workshops where representatives of many Latin American nations met and formulated practical steps – financial, legal, and technical – for developing these local health systems, which became known as SILOS.

The PAHO-Kellogg Foundation partnership used the spread of democracy throughout Latin America in the 1980s as a springboard to focus heavily on community-based health care.

From the outset, SILOS were regarded as essential parts of national health systems throughout the region, reinvigorating and giving them new direction. From treating the chronic ailments springing from regional conditions to overcoming problems caused by natural catastrophes, SILOS would be more flexible, efficient, and sensitive to local needs.

However, there was much to be done before such systems could be fully responsive to people's needs. In addition to ongoing decentralization and community participation, financing mechanisms would need to be adjusted, new care models implemented, and appropriate training delivered.

The SILOS Effect

The PAHO-Kellogg Foundation partnership supported these efforts through a multi-faceted program sometimes referred to as Strengthening the Implementation of Local Health Systems. From 1987 to 1993, this series of projects aimed to formulate and distribute sound methodologies for improving local health systems and to show that evaluation was a powerful tool for change.

Why was thorough evaluation so important? For one, to learn what worked and what did not, allowing experts in the field to develop ever more effective innovations. It also could invite greater participation from service providers, the community, and even individual consumers.

The first three systems the program evaluated were considered innovative in their respective countries, where economic, social, and political conditions were favorable to decentralization. Each was committed to getting the various institutions involved in health care to work together. And all of them provided care, not to isolated individuals, but to individuals as members of families and communities:

Through UNI projects, medical students from diverse disciplines bridged classroom learning with practical application to meet the specific health needs of their communities.

- In Niterói, in the state of Rio de Janeiro, Brazil, care was offered at six municipal health centers, staffed by multi-professional teams. The focus was on integrating municipal and state services with the country's social security agency and the Federal University at Fluminense.
- The Cali system, centered at del Valle University in Colombia, created the Center for Development of Primary Health Care and Family Medicine. CEDADS, as it was called, emphasized the family in all its activities, including training health care providers, devising more efficient management systems, and empowering mothers as leaders in family health.
- The University of Nuevo León in Monterrey, Mexico, coordinated a health systems project that improved health care delivery in the community by simultaneously training personnel and improving the management system.

With valuable feedback from the PAHO-Kellogg Foundation program, these three delivery systems were able to make vast improvements to the quality of life in their respective areas.

Yet SILOS throughout Latin America still faced numerous challenges, from inspiring community participation in urban areas to upgrading information systems. With these issues in mind, PAHO and the Kellogg Foundation selected 10 SILOS for an intense evaluation process – two each in Dominica, St. Vincent, Bolivia, Haiti, and the Dominican Republic. These projects deployed special evaluation tools to assess their work and pinpoint areas for improvement. A PAHO field report revealed additional good news: In some SILOS, the evaluation process stimulated greater community involvement.

The final stage of the program dealt with presenting, utilizing, and disseminating the results of these SILOS evaluations. At an important seminar sponsored by PAHO and the Kellogg Foundation, the self-evaluation methodology was voted a success. Motivated by these positive results, the partners helped develop and distribute a series of 100-page manuals that

covered topics ranging from equipment and supplies to environmental surveillance.

As the publication *Evaluación para el cambio: Bolivia, Haiti, República Dominicana* stated: "The simple fact that a group or team of professionals pause in their work and allow themselves to reflect on the direction of their actions to establish what is going well and what can be corrected…in itself represents a high degree of maturity."

This was no dilettante exercise. Every SILOS assessment started with the full support and interest of national authorities, who used the information to guide future public health strategies.

Una Nueva Iniciativa

TSAs helped breach the insular world of medical training and brought reciprocal benefits to caregivers and receivers. Despite these impressive accomplishments, they had not fully integrated with communities nor had they actively empowered citizens.

For their part, SILOS had started to engage communities, with neighborhood associations taking the lead in some areas. Yet the evaluation process inherent within the SILOS methodology revealed that many projects would have been more effective if they had included more community members as active participants and planners. Additionally, the academic setup still tended to build barriers between the disciplines, and opportunities for teamwork were not fully realized.

"What was needed was a new paradigm for the community," said Dr. Francisco Tancredi, W.K. Kellogg Foundation's current regional director for Latin American and Caribbean programs.

Enter the UNI program. Also known as A New Initiative in Health Professions Education: Partnerships with the Community, UNI would build on the work of TSAs and SILOS to establish much closer relationships between universities, communities, and local health systems.

Knowing there would be more interest than the available resources could support, the Kellogg Foundation set strict guidelines. To earn UNI grants, projects had to demonstrate how they would involve the community. They would have to show that educational activities were built into the process and that undergraduate students from several health backgrounds would participate. And they would have to take health messages directly to the people who needed them the most.

Interest was indeed high. From more than 150 applications, the Kellogg Foundation eventually selected 23 to become UNI projects. Fifteen went into action in 1992; others were added as the decade progressed.

The diversity within the UNI program was great: The communities had populations ranging from 10,000 to 200,000, and were equipped with health care resources ranging from very limited to very good.

UNI Project Sites

1. Tucumán, Argentina
2. Sucre, Bolivia
3. Botucatu, Brazil
4. Brasília, Brazil
5. Marilia, Brazil
6. Natal, Brazil
7. Paraná, Brazil
8. Salvador, Brazil
9. Santiago, Chile
10. Temuco, Chile
11. Barranquilla, Colombia
12. Cali, Colombia
13. Medellín, Colombia
14. Quito, Ecuador
15. Colima, Mexico
16. Merida, Mexico
17. Mexico City, Mexico
18. Monterrey, Mexico
19. León, Nicaragua
20. Trujillo, Peru
21. Montevideo, Uruguay
22. Barquisimeto, Venezuela
23. Maracaibo, Venezuela

To help each UNI project reach its fullest potential, the Kellogg Foundation provided supporting mechanisms for the three project components: the academic, local health system, and community "pillars."

Committing to the UNI program forced many academic institutions to effect major changes in their health professions curricula. Moreover, UNI helped establish community-based health care centers where students from many different backgrounds (e.g. nursing, dentistry, nutrition, pharmacy, and social work) would work, learn, and share experiences with the families and neighborhoods they served.

Community empowerment was perhaps the most important pillar within the UNI structure. Here, the primary aim was for individuals, families, and groups to take more active roles in public health. In fact, UNI officials produced leadership development models that could help projects become self-sustaining entities.

A View From the Ground

UNI projects took on many forms and tackled many issues. Four of the most successful were based in Colombia, Peru, and Brazil:

- In Cali, Colombia, the UNI project at the University of the Valley helped reorganize health services delivery in two community hospitals and 18 centers. True to the UNI philosophy, community leaders participated in the decision-making process in meaningful ways. Among its accomplishments, the project created innovative referral and shared information systems that sped up patient referrals and tracking.

- Nestled in a Peruvian community of 16,000 urban, rural, and migrant inhabitants, the National University of Trujillo worked with neighborhood associations, the Ministry of Health, and the Peruvian Institute of Social Security to boost care services at three health outposts and one small hospital. This UNI project developed new curriculum that enabled teams of nursing, medical, and dental students to learn in the community. Further, volunteer health promoters helped local residents realize and act on the importance of clean water supplies, garbage collection, and sewage disposal.

- Fast growing cities mean overcrowding, and overcrowding brings disease. The UNI project at the State University of Londrina in Brazil developed a new local health care system, strengthening two local hospitals and 17 regional outposts. It also greatly advanced the system's ability to deal with epidemiological and environmental hazards, and urged local people to take responsibility for improving their health.

- In Marilia, Brazil, a relatively wealthy area with solid health care services, the UNI project worked to reduce the costly duplication of services. Forming partnerships with neighborhood associations and municipal and state health departments, the Medical School of Marilia also created a computerized referral system that manages patient flow more efficiently.

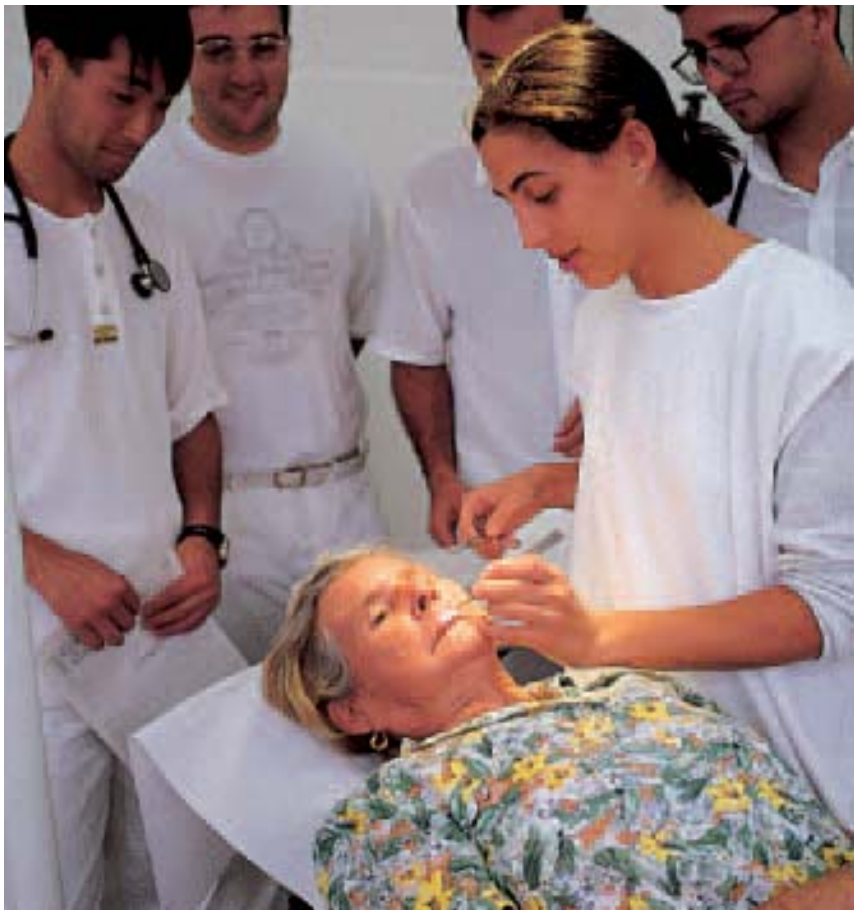
Recognizing UNI's vast benefits, PAHO collaborated with the Kellogg Foundation to initiate the Program to Support the UNI Project in 1996.

Through its pioneering work in SILOS, PAHO officials had identified the need for better management, stronger epidemiology, and more efficient service operation, whether in outpatient or hospital care. The PAHO-Kellogg Foundation partnership answered this call by creating a series of 12 operational manuals for the leaders of UNI projects. Written by experts in their fields, these publications provided a wealth of information on how to manage local health systems, covering everything from accounting procedures to running environmental programs.

For example, *Drug and Vaccine Management,* written by Dr. Carlos Moreno, provided a comprehensive list of drugs at primary, secondary, and tertiary care levels. It also discussed best practices in warehousing and quality assurance. PAHO also engaged Dr. Ana Maria Malik to create *Management of Human Resources,* which provided guidelines for creating woman-friendly hospitals, interacting with labor unions, and facilitating internal communications.

More recently, in 2000, PAHO and the Kellogg Foundation collaborated on a project titled Development of Human Resources for the Strengthening of Decentralized Levels of Health Systems. A series of seminars promoted open debate between health care policymakers and managers, as well as academic institutions and professional organizations, on how to maximize human resources. As a result, local leaders at UNI projects could relate experiences to the broader health policy environment, and ultimately to the political realm.

The second seminar in Lima, Peru, was particularly successful, given the social and political upheavals that preceded it. After the exit of President Alberto Fujimori in 2001, Peru's government established a new Ministry of Health. From the outset, PAHO and the Kellogg Foundation engaged the agency in designing the seminar and leading the recommended reforms. Presentations centered on the experiences of the UNI project at Trujillo, which sparked lively discussions on how to improve communication between the country's government, academic, and community organizations.



UNI students gain invaluable hands-on experience within the full spectrum of community health care.

"With limited resources, we have contributed to putting significant forces in motion," wrote Charles Godue, the project director. "The synergy between Kellogg and PAHO in the project has been a great asset…."

Communities Fit for Life

The Healthy Cities initiative, closely paralleled by the Healthy Municipalities and Communities Movement, also championed a local approach to improving public health.

Following positive experiences in Europe and Canada, healthy city projects were set up in Managua, Nicaragua; Valdivia, Chile; Cienfuegos, Cuba; Zacatecas, Mexico; Manizales, Colombia; Zamora, Venezuela; San Carlos, Costa Rica; and Curitiba, Brazil.

How does a municipality become healthy? According to a PAHO report in the on-line magazine of the Global Health Council, the process begins "when local organizations, citizens, and elected authorities enter into an

agreement and implement a plan of action that will continuously improve the social conditions that produce health and well-being for all of the people that live in that space."

It's a process that has taken hold in more than 1,500 registered municipalities in Mexico. Often working amid crumbling Aztec settlements that stand witness to an older eco-sensitivity, leaders in various sectors and members of the community have carried out education campaigns about the environment and basic sanitation. Other projects addressed quality of life issues and drug prevention.

In Argentina, children, adolescents, and mothers all benefit from the collaborative efforts of government organizations, schools, ecological groups, and the Red Cross. Together, these groups are working to: 1) reduce malnutrition with the practical solution of community vegetable gardens; 2) alleviate poverty through micro-enterprises; and 3) create communication broadcasting networks to spread important health messages.

While PAHO focused on policy and discourse, the Kellogg Foundation did its part at the grassroots level. The strategy? To advance the concept of Healthy Cities by expanding the sphere of influence within local public health systems. Initiated in 1996, the New Teaching and New Practices program has helped numerous projects forge strong partnerships between schools of public health, community organizations, and municipal governments.

In 2002, PAHO and the Kellogg Foundation introduced the Health Promotion Kit for Mayors – a comprehensive, how-to community health guide for Latin American community leaders.

In addition to creating new training materials, these projects actively engaged professionals who don't usually have a voice in public health decisions, including lawyers, psychologists, social marketers, communications experts, and even architects. This influx of views and vantage points, combined with active community participation, has led to innovative, holistic ways of implementing the Healthy Cities ideal.

The New Teaching and New Practices program also increased the role of mayors and other municipal officials in public health. Encouraged by this success, the Kellogg Foundation supported PAHO's launch of the Health Promotion Kit for Mayors in 2002. Designed to help local leaders bring better health to citizens, the kit provides "how-to" information on developing health promotion action plans, reorienting health services, and engaging the community.

Working together, PAHO and the Kellogg Foundation have helped bring about enormous changes in health and well-being by taking materials,

messages, and empowerment directly to the people. The improvements that emerged from this community orientation have spiraled upwards, strengthening not only individual nations, but also the collective potential of the entire hemisphere. And as the following two chapters illustrate, PAHO and the Kellogg Foundation have successfully harnessed this energy to reach families – the very heart of public health.

A health promoter inspects water quality in Colombia. PAHO and the Kellogg Foundation encourage local leaders to focus on sanitation and numerous other issues to improve health conditions within their own communities.

In the strongly family-oriented culture of Latin America, nuclear families – with all their trust, familiarity, and informality of interaction – had been confirmed as the vital framework for achieving better individual health.

Chapter 6:
For Mother and Child

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For Mother and Child

A Shared Commitment

W.K. Kellogg struggled in school, leaving formal education just after the 6th grade. "My teacher thought I was dimwitted," he later recalled. Not until age 20 did he learn he was nearsighted, and that his so-called learning problems could have been easily remedied with proper diagnosis and a pair of glasses.

This early experience helped motivate W.K. Kellogg to make the alleviation of infant and child suffering a top priority of his Foundation. It's a commitment PAHO has shared for decades. In the 1920s, delegates at Pan American Sanitary Conferences started discussing maternal and child health issues, such as hygiene in schools and training for traditional midwives. This trend was formalized as official policy in 1948, when participants at the PAHO-sponsored Ninth Pan American Child Congress approved the Declaration of Caracas, which stated that mothers and their children have an unequivocal right to health protection.

Considering these developments, it comes as no surprise that the welfare of mothers and children has long been a cornerstone of the PAHO-Kellogg Foundation partnership. With good reason: In Latin America – where women of childbearing age and children constitute a very high percentage of the population – maternal and child health takes on extraordinary significance.

The combined commitment of PAHO and the W.K. Kellogg Foundation was formidable, but so were the challenges. Based on needs identified through a 1950 fact-finding mission, PAHO launched initiatives in more than a dozen countries throughout the region, including immunization programs against diphtheria, pertussis, and tuberculosis.

Despite these groundbreaking efforts, public health problems continued to plague Latin America. In almost every large city, more and more people were crowding into sprawling slums whose sewage systems, if they existed at all, proved unable to cope. Poverty, malnutrition, and disease held streets and shantytowns in their grim embrace, sometimes slowed but never stopped by overburdened and underequipped doctors, dentists, and nurses. Predictably, the most vulnerable, including mothers and infants, suffered and died in large numbers.

Sensing the Urgency

The 1960s bore witness to social upheavals that shattered the status quo in many areas of the world. In 1968, 10 million French workers struck in solidarity with protesting students, helping to topple Charles de Gaulle's government and inspiring extensive reformation of their country's immigration, education, and gender policies. That same year, the Prague Spring movement attempted to give Czechoslovakians the freedoms of speech and assembly before being brutally repressed by Soviet troops. In the United States, the civil rights movement fueled legislative and social change that helped narrow the racial divide.

PAHO also served as an agent of change during the 1960s, sponsoring a series of landmark studies that brought Latin America's crisis in maternal and child health into sharp focus. The Inter-American Adult Mortality Study, published in 1967 under the title "Patterns of Urban Mortality," revealed an alarming gulf: Many times more women between the ages of 15 and 44 were dying of motherhood-related causes in Latin American nations. A follow-up report produced similarly frightening results: In San Francisco, one death in 174 was associated with maternity, while in Santiago, Chile, the ratio was one in five.

Inhabitants of shantytowns, like this one in Port-au-Prince, Haiti, often suffer from overcrowding and poor sanitation.

Latin American mothers often passed on severe health problems to their newborn babies. But the greatest cause of death in children under five was not disease; it was hunger. The Inter-American Investigation of Mortality in Childhood, conducted by PAHO, found that nutritional deficiencies caused at least 57 percent of all deaths in this age group, exacerbated by low breastfeeding rates. Diarrhea and measles were common, especially in rural areas, and poor prenatal care and the lack of clean running water perpetuated the cycle of suffering.

Underlying these health threats was an explosion in Latin America's population, which was doubling every 24 years. For much of the 20th century, government officials from the region rarely discussed this politically and culturally sensitive issue at public forums. By the late 1960s, however, they began to meet it head-on. In 1967, Latin American health ministers met in Caracas, Venezuela, for the PAHO-sponsored Conference on Population Policies in Relation to Development. They drafted a series of recommendations that helped pave the way for family planning programs across the region.

Blending the Best of Ancient and Modern

Emerging from this cauldron of changed attitudes and new-found urgency, the PAHO-Kellogg Foundation partnership in maternal and child health ushered in decades of visionary, yet practical, reforms. From 1974 to 1982, the organizations jointly supported the Regional Program for the Development of Maternal and Child Health. The effort enabled talented project teams at various medical and teaching institutions in Brazil and Colombia to improve care for pregnant women and infants.

Traditionally, Brazilian women have relied on a midwife, known as an aparadeira (catcher), to help with childbirth. One PAHO-Kellogg Foundation project was centered at the Federal University of Ceará in Fortaleza, an Atlantic coastal city. This project trained midwives to adopt traditional methods in order to avoid unnecessary cesarean procedures and other surgeries. In turn, midwives encouraged mothers to use the birthing stool, a cushioned, plastic-covered chair that made delivery safer and more comfortable.

Under the direction of Dr. José Galba Araujo, a professor of obstetrics, midwives raised standards at local health facilities, stocking them with vital equipment and ensuring that they could be used 24 hours a day. They were also trained to perform minor medical procedures and, perhaps most importantly, learned to identify women with high-risk pregnancies, who they referred to the teaching hospital and maternity unit in Fortaleza.

The project's impact on the state of Ceará – which previously had the dubious distinction of exceeding the already high national infant mortality rate of 109 deaths per 1,000 – was nothing short of incredible. During its first two years of operation, a new-style maternity clinic in the small village of Lagoa Redonda helped deliver 1,685 babies without a single loss of life, either to infant or mother.

Taking Care Into the Community

The PAHO-Kellogg Foundation collaboration in maternal and child health also helped establish the In-Service Training Program on two islands in one of Rio de Janeiro's administrative regions. Together, Governador Island, the region's capital, and Fundao Island, where a new hospital had just been built, served the medical needs of a string of over 20 smaller islands.

Led by a team from Federal University in Rio de Janeiro, this specialized program integrated practical work experience for medical and nursing students with teaching, research, and the education and involvement of community leaders. The program served an area with the highest birthrate in Rio de Janeiro, where 55 percent of the population was comprised of mothers and children. Although infant mortality was low compared to Ceará, babies and toddlers still died from influenza, pneumonia, bronchitis, and asthma.

Families – the single most important social unit in Latin America – have to be an integral consideration when structuring and distributing health care within a community.

Thanks to this innovative approach, many more patients gained access to a wider range of better quality services. In addition, new research programs were set up to address important topics like breastfeeding, immunology, and risk factor assessment before and after birth.

The first stage of the PAHO-Kellogg Foundation partnership in maternal and child health was punctuated by three international seminars, which enabled leaders to exchange ideas and experiences. Physicians, midwives, nurses, and administrators from all over Latin America traced significant gains in the survival and well-being of the populations they served. Seminar attendees heard how the project team at Javeriana University in Bogotá improved infant nutrition in the city. They learned that a team in Rio de Janeiro created the Study of Pediatric Risk, the first prediction model based specifically on conditions in Brazil, including reproductive, perinatal, and pediatric factors. And, they were told how another Brazilian project team created illustrated manuals on child care for women who can't read.

According to an evaluation report, the projects that made up the Regional Program for the Development of Maternal and Child Health had, collectively, "strengthened national programs in Brazil and Colombia." But PAHO and the Kellogg Foundation realized they couldn't rest on their laurels. Many other challenges, in many other countries, awaited their combined talent and determination.

A Family Affair

Throughout the 1970s, PAHO and the Kellogg Foundation came to recognize a fundamental tenet for effective action: All the issues they tackled were integrated, growing out of and contributing to each other. It followed that integrated programs were going to be needed to vanquish them.

In 1980, with this idea in mind, the organizations launched a second major initiative for improving maternal and child health. In the family-oriented culture of Latin America, nuclear families – with all their trust, familiarity, and informality of interaction – had been confirmed as the vital framework for achieving better individual health. The new program honored this principle, even in its title: "Regional Program of Perinatal and Maternal-Child Care with Emphasis on Primary Health Care for the Nuclear Family." Since the nuclear family operated as a smaller unit of the community, the new strategy would base its programs, spending, and recruiting on what each community needed.

The Latin American Center for Perinatology & Human Development (LACP), a PAHO unit based in Montevideo, Uruguay, became a vital new element in the program. As a result, PAHO and the Kellogg Foundation started the second maternal-child health program in two Uruguayan regions, Cerro Largo and Rio Branco.

With help from the LACP, the PAHO-Kellogg Foundation partnership quickly expanded health coverage, thanks in large part to a complementary education campaign for parents, parents-to-be, and the community as a whole. Also important, expertise was redistributed from its concentration in hospitals to outlying health centers. A smaller, private hospital in Melo, Cerro Largo's largest city, acted as a testing ground for new initiatives.

A Question of Technology

The LACP-PAHO-Kellogg Foundation trio also supported an innovative study of 100 mothers that proved how the reinduction of lactation can be an effective means of managing diarrheal disease. The study yielded an unexpected bonus. After the reinduction of lactation, many mothers became more active in their children's hospital treatments. This not only served to foster better communication with health care workers, it also promoted a team-based approach to care.

Another innovation of note spearheaded by the LACP was the Perinatal Information System, which was based on simplified clinical records. All too often, over-complicated official records at the time produced information that was unnecessary for low-risk situations. The new system, with its perinatal passport set up for mothers and infants, harnessed new computer capabilities, and created technology modules geared for health care at different stages of pregnancy and motherhood. Stored on computers, it was more accessible to other locations and groups, and could be readily updated with new information. The net result: better and more efficient care for mothers and their babies.

In another element of the program, PAHO and the Kellogg Foundation focused on strengthening the LACP's teaching and teaching services activities. Central to achieving this goal was the need to improve the range and quality of published and audio-visual teaching aids available in Spanish and Portuguese. New output included technical manuals for training health workers, nurses, and doctors. They covered many areas – from identifying birth-weight patterns to running immunization programs, from controlling acute respiratory infections to treating disease.

The partners also commissioned slides, videocassettes, and films that addressed topics of greatest importance to mothers and children. One presentation promoted early bonding of mother and child directly after birth, advocating breastfeeding as an essential component. Another took cameras into the delivery room to study parents interacting with their newborn children.

Mother and child health initiatives not only improved child health care in the community, but they also simplified clinical records, improved teaching and training materials, and tackled overuse of complex technologies.

With support from PAHO and the Kellogg Foundation, the LACP daringly addressed an issue that was becoming a growing problem in many Latin American countries. While ever-more complex health technologies were providing positive results, their misapplication was wasting money. In some cases, they were even causing harm.

For example, an academic study on Electronic Fetal Monitoring (EFM) revealed that there is "little increased benefit from EFM compared to auscultation (listening with a stethoscope)." More importantly, the report stated: "The risk of cesarean sections is substantially increased with EFM." Improper use of drugs, as well as medical equipment, could also be

detrimental to health. Clinical trials showed that patients with late-onset diabetes who were taking the drug tolbulomide died more often from heart disease.

A PAHO report concluded that much of the medical technology imported into Latin American countries was not being assessed for efficacy, safety, or cost effectiveness. Ironically, this was one area in which wealthier people were disproportionately affected. Poor people's access to such technology was extremely limited! Cooperating with other networks, PAHO developed activities to bring about change in key areas, including technology transfer, research and development, and education. This would help ensure that Latin American countries gained the benefits of innovation while protecting against its dangers.

Reaching Further Afield

Staff from the LACP, PAHO, and the Kellogg Foundation traveled across South America, exploring and assessing the best locations in which to base additional community-centered maternal and child health projects. In 1982, seven countries fulfilled the criteria as suitable hosts, eventually conducting 18 projects among them.

Many of the projects involved several institutions and disciplines – a blend of expertise that strengthened the individual components. Health delivery experts coordinated their work with teaching and training programs, emphasizing maternal, perinatal, and child care among populations that had been pushed to the margins of society. The projects also actively encouraged community participation.

Within this integrated framework, the PAHO-Kellogg Foundation partnership disseminated essential knowledge and provided timely technical assistance, in addition to funding. More importantly, the organizations provided inter-project networking opportunities, including the Annual Meeting of Principal Collaborators.

In underscoring the diversity of activities, A PAHO evaluation report stated that, "The objectives of these projects emphasize different areas, such as the development of health services at the primary level, training human resources, development of appropriate technologies, and operational and epidemiological research." For example:

- A team from University of Javeriana in Bogotá, Colombia, created a regionalized maternal-child care system, which worked well locally in 'real-life' conditions, with services based around the needs and cultural

norms of communities in the area. The PAHO report reveals how this success snowballed: "After effective results in the project, the system is being applied in a nationwide experience [leading to] a better integration of the health teams at different levels of care."

- The maternal and child health program in Santiago, Chile, helped reduce the neonatal mortality rate from 23 to 16 per 1,000 live births. According to the PAHO report, "The high quality of care provided and the teaching capabilities demonstrated have made this project a national and international center for training maternal and child health personnel, especially in neonatology and perinatal care."

LACP Project Sites

Starting in 1982, 18 diverse maternal and child health projects were conducted in seven Latin American countries:

1. **Córdoba, Argentina**
2. **Rosário, Argentina**
3. **Campos, Brazil**
4. **Belém, Brazil**
5. **Fortaleza, Brazil**
6. **Niterói, Brazil**
7. **Rio de Janeiro, Brazil**
8. **Santiago-North, Chile**
9. **Santiago-Southeast, Chile**
10. **Bogotá, Colombia**
11. **Bucaramanga, Colombia**
12. **Santiago de los Caballeros, Dominican Republic**
13. **Quito, Ecuador**
14. **León, Mexico**
15. **Tijuana, Mexico**
16. **Asunción, Paraguay**
17. **Arequipa, Peru**
18. **Cerro Largo, Uruguay**

◆ In the Mexican cities of León and Tijuana, the maternal and child health project team implemented a new approach to delivering prenatal care, in which pregnant women are classified according to a risk scale. Again, the PAHO report assessed the impact: "The program is contributing to developing basic components of maternal and child health care for the marginal populations."

Heroism in Public Health

The third phase of the PAHO-Kellogg collaboration, from 1985 to 1990, continued to focus on families as the basis of change. Other elements that had already proved successful also found a place here. Participating professionals were again committed to delivering services regionally, with uppermost concern for the community's primary health care needs.

To move forward, PAHO and the Kellogg Foundation helped organize networking groups, whose collective mission was to research, develop, and assess health technologies. One such group created a methodology for matching technology with needs, a challenging yet vital component of delivering quality care. Another researched lifestyles and cultural systems, identifying their impact on maternal and child health. In addition to assessing the behavior of people and professionals, this group tackled the difficult subject of child abuse.

A nurse administers oxygen to an infant in a hospital in Lima, Peru. Technology used for procedures like this has been a critical element of PAHO-Kellogg Foundation maternal-child initiatives.

A third group focused on technological policies and innovation. They analyzed health insurance coverage and how it influences access to health services technology, studied trends in legislation dealing with the family, examined the relationship between scientific knowledge and infant survival, and researched the influence of information, planning, and budget systems on the diffusion of technology.

Yet another group concentrated on the potential pitfalls in the transition from child to adult, researching typical risks for the group and identifying possible health care delivery solutions. The group developed a matrix approach to researching risks, such as pregnancy, drugs, alcoholism, and accidents, and the various preventive strategies involving community health services. In fact, the knowledge derived from this initiative helped spark the flame for a more comprehensive PAHO-Kellogg Foundation alliance in the area of adolescent health.

The PAHO-Kellogg Foundation partnership for maternal and child health has taken many forms and tackled many issues. But a common thread has been woven through this uncommon breadth of action, best described by the final program report: "PAHO-Kellogg projects are not considered separate work plans, but as integral parts of the whole...a strategy [which has] strengthened efficiency and effectiveness in the area of maternal and child health."

A testament to this success came in 2002, when Dr. Elsa Moreno, who served as director of PAHO's maternal and child health program from 1976 to 1989, was named as one of the 11 "Public Health Heroes of the Americas" during the organization's centennial celebrations.

Mother and child enjoy a quiet moment in Santo Domingo, Dominican Republic.

"The PAHO-Kellogg Foundation project has given Latin American youth the opportunity to become actors of change and development in our societies. Thanks to its emphasis on youth participation, the project's impact has been substantial."

Diana Teresita Espinosa
Colombian Youth Leader

Chapter 7:
Adolescent Health Comes of Age

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Adolescent Health Comes of Age

A Dose of Reality

For the lion's share of the 20th century, adolescent health in the Americas failed to garner much attention as a high-priority health concern. With childhood disease in the rearview mirror and the health problems of adulthood and old age a long way off, the prevailing notion was that adolescence offered a relatively safe haven.

"The needs of these young people were often overlooked by health and human services throughout the region," said Dr. Matilde Maddaleno, PAHO's regional adviser on adolescent health. "They only received attention when their behavior became disturbing or aggressive."

Perception and reality were worlds apart. Everyday, adolescents faced the dangers that lurk wherever curiosity and energy meet inexperience and lack of guidance: addictions, sexually transmitted disease, and unwanted pregnancies, as well as a range of physical accidents. Such experiences, distressing in themselves, were often compounded by far more serious medical problems.

Since the early 1990s, PAHO and the Kellogg Foundation have worked diligently to raise awareness among the region's public health leaders of the dangers that adolescents face. Disseminating information continues to be a mainstay strategy in this campaign. The recently published *Life Skills Approach,* for example, underscores the current state of affairs:

"Young people face considerable challenges to their healthy development. In several of the poorer countries of the region, infectious diseases, such as diarrhea, influenza, and pneumonia are still among the top five causes of

death for 10 to 14 year olds. But, for many countries at the other end of the epidemiological transition, death and illness associated with risky behaviors, such as smoking, motor vehicle crashes, violence, and high-risk sexual activity have begun to take on greater importance. During the last decade, the level of violence has increased throughout the world and is emerging as one of the most serious problems in the region."

The Beginning of a Brighter Future

Inspired into action by such consistently troubling field reports, Dr. Carlyle Guerra de Macedo, PAHO's director during the early 1990s, put adolescent health on the organization's priority list. Shortly thereafter, at the XXXVI Directing Council in 1992, member states adopted the Plan of Action for the Health of Adolescents in the Americas, which urged the region's governments to:

- shape national policies and plans for promoting adolescent health
- strengthen bonds between the agencies responsible for this age group
- involve young people in creating health promotion activities in meaningful ways

Students at a gym in Campinas, Brazil, are taking steps to a healthier adulthood.

- encourage government sectors to work together on a range of innovative projects

Against this backdrop, PAHO and the Kellogg Foundation created the Project to Support National Initiatives on Comprehensive Adolescent Health in the Region of the Americas. The project started with a "big picture" approach, striving to help national health programs meet the needs of adolescents.

Some countries, at least initially, were not fully convinced of the urgency to amend their systems. In response, PAHO and the Kellogg Foundation published *Why Should We Invest in Adolescents?*, which emphasized the fiscal and moral arguments for change. This document emphasized the "substantial costs to governments and to individuals for every failure of youth to reach adulthood alive and healthy, with an adequate education, and without children they cannot care for." And it demonstrated that these costs are "almost always greater – sometimes vastly greater – than the costs of programs to help youth achieve these goals."

To jumpstart the process, PAHO and the Kellogg Foundation jointly developed and distributed a wide range of specialized tools – manuals, guidelines, and surveys – in Spanish, Portuguese, and English. The partnership also helped more than 1,200 health professionals receive training in how to use them.

This strategy has paid off handsomely. Health officials in numerous Latin American countries conducted field tests using Family and Adolescence: Indicators of Health. This specialized diagnostic tool, coupled with Evaluation of Adolescent Outpatient Care Services and Survey of Missed Opportunities, enabled professionals to identify gaps in care.

Moreover, agencies in Argentina, Bolivia, Brazil, and Costa Rica built their programs with help from PAHO-Kellogg Foundation tools, such as *Guidelines for Programming Comprehensive Adolescent Health Care* and the *Information System for the Comprehensive Health of Adolescents.*

The PAHO-Kellogg Foundation project also helped inspire Chile's Ministry of Health to launch the country's first national health program for youth in 1994. According to a PAHO field report, the initiative was working to "monitor the determinants of health problems among young people, develop the capacity for self-care, and ensure comprehensive health care services."

Clearly, the issue of adolescent health had hit the radar screen in Latin America.

Making Connections

To expand the project's impact, PAHO and the Kellogg Foundation cosponsored the 1996 Conference on the Comprehensive Health of Adolescents and Youth. Gathering in Washington, D.C., the 49 medical doctors, sociologists, psychologists, nurses, and youth leaders from 17 Latin American and Caribbean nations represented a formidable concentration of knowledge and leadership. The conference helped them return home and lead adolescent programs tailored to the needs of their own countries – programs based on a common conceptual framework they mapped out together.

By common consent, one of the most valuable results of the conference was the input, not just of health professionals, but also of four regional youth leaders, who could speak knowledgeably about the priorities for action "on the ground." Their participation sparked a commitment to youth empowerment that became a motif of future initiatives.

The conference proved to be a powerhouse of networking, too, with Nicaragua and Costa Rica shaking hands on technical collaboration, and Nicaragua, Guatemala, and Honduras establishing joint training programs and national action plans.

During the first five years of the PAHO-Kellogg Foundation project, the Internet was utilized to keep these lines of communication active. PAHO developed its own Adolescent Health Web site to provide critical project information and links to the latest research and technical information.

Bridging the Generation Gap

PAHO also played an active role in the Kellogg Foundation's Healthy Adolescent Initiative in Latin America. The effort reflected the growing understanding that the best interventions for adolescents cut across health, education, sports, and economic development.

Under this umbrella, PAHO and the Kellogg Foundation set up a dual project in Cochabamba and Sucre, two major cities in Bolivia. Teenagers were invited to sit on the executive board and help manage the project – a move that opened minds at both ends of the age scale.

At the outset of the project in 1996, the local coordinator in Sucre had the foresight to ask a psychology adviser to help resolve potential conflicts. It was a wise move considering that many of the ensuing group discussions posed the central question, "What is an adolescent?" Many of the adults

representing the various institutions on the board thought that teenagers were children needing direction or, worse still, a social problem. Not surprisingly, the teenagers disagreed and asserted their right to be taken seriously. This was pioneering work that rewarded participants with new levels of intergenerational understanding and cooperation.

The energy and ideas of Sucre's young people showed through in many fresh initiatives. They painted, renovated, and refurbished an old house belonging to the local government, which quickly became a focal point for positive youth development. Participants with artistic leanings collaborated on a large mural and sponsored a rock concert as part of Sucre's traditional Festival de la Cultura (cultural festival).

PAHO and the Kellogg Foundation turned to adolescents like these dance students in Puerto Cumarebo, Venezuela, to identify issues and concerns facing their generation.

In a more formal note, adolescent leaders also helped forge agreements with national government organizations on procedures to protect battered children and teach reproductive and sexual health in the city's secondary schools. The Sucre team also worked with local agencies to provide special training opportunities for young people to learn catering, locksmith work, carpentry, dressmaking, and other valuable skills.

Local radio stations and publications publicized many of these activities. One program, "Salud de la Nueva Era" (Health in the New Era) – coordinated by four dynamic young people – featured presentations on sexually transmitted diseases, reproductive health, and typical adolescent problems. Even more impressively, they helped create five legal offices that brought together committed lawyers, social workers, and psychologists to tackle a range of pressing issues, including employment for minors.

Under the leadership of Mr. Juan Carrillo, the project in Cochabamba achieved similarly outstanding successes. As in Sucre, participants transformed a government building into a center that offered advice, support, and medical treatment to young people who too often went without these vital resources. And knowing that residents in many of the city's local neighborhoods didn't have access to movies, participants took the best new releases on tour twice a week, promoting lively discussions of the issues among the audience.

Advocacy in Action

In 1996, PAHO's new director, Sir George Alleyne, renewed the organization's commitment to young people, pledging even more resources to the cause and appointing Dr. Maddaleno as the new regional health adviser on adolescent health.

PAHO's XL Directing Council solidified this commitment a year later by adopting Resolution CD40.R16, which called on member states to recognize "the importance of adolescent health and development for the economic and social future of the countries of the region."

Dr. Matilde Maddaleno, PAHO's regional advisor on adolescent health, has been a powerful advocate for adolescent issues.

The PAHO-Kellogg Foundation partnership would once again prove instrumental in turning resolve into reality, implementing the second stage of the Project Supporting the Comprehensive Development of Adolescents and Youth in Latin America and the Caribbean Countries.

The project was particularly successful in the realm of advocacy. Dr. Maddaleno and her team lobbied hard to get adolescent issues included in the Latin American First Ladies' Summit of 2000, where first ladies attended presentations on topics such as preventing youth violence and fostering leadership among teenage girls.

The momentum never stopped. The following year, organizers of the First Ladies' Summit in Ecuador officially put adolescent health on their influential agenda, and leaders went home with valuable information to use as advocacy tools. Also in 2001, for the first time ever, the United Nations General Assembly Special Session held meetings dedicated to adolescent health.

Further, the Kellogg Foundation helped PAHO create and distribute *Adolescent and Youth Policy: The Experiences of Colombia, Dominican Republic, and Nicaragua.* This powerful document has enabled top ranking officials in governments throughout the Americas and the Caribbean to learn about the experiences of fellow countries, including the pitfalls to avoid.

More importantly, the document shares success stories – blueprints on how to best meet the needs of adolescents. For example, it provides an in-depth look at how the Dominican Republic implemented one of the most thorough programs in Latin America. The country's Directorate to Promote Youth (DGPJ) and the Intersectoral Committee (IC) formulated the National Policy for Adolescents and Youth, and worked to ensure the adoption of the Youth Law, which formally recognizes young people as a pillar of national development.

The Dominican Republic's experience teaches the importance of inclusion. Adolescent and Youth Policy outlines how "the actors consulted in the social decision-making process of developing the national policy for youth included approximately 1,000 persons (including many youth) representing 250 organizations."

Asked how they felt about these policies, many young people in the Dominican Republic said that they started to see themselves as legitimate members of their society. They also recognized the advantage of having a forum in which they could demand better services and raise their voices for social change. Bolstered by such positive experiences, adolescents from the Dominican Republic are now helping to train El Salvadorian youth how to advocate for and achieve similar gains.

Showing Resilience

If advocacy was the voice of adolescent health, the development and implementation of programs and services was its muscle. This element of the PAHO-Kellogg Foundation partnership aimed to define priorities, goals, and strategies to help countries establish or improve national adolescent health programs.

The project has achieved measurable success. By 2001, 18 countries had set up national programs and nine of them had evaluated the changes they were bringing about. There also was an upswing in the financial commitment from governments in the region. According to the project's final report, "In 2001, 62 percent of the programs received national funding, a substantial increase from 1996 (43.5 percent)."

A health promoter distributes information on AIDS in Ciudad Juarez, Mexico. Communication is the key to empowering adolescents to play a role in social change.

This dramatic upswing has helped numerous programs reach more adolescents than ever before. For youth working with their peers in Costa Rica, for example, the prototype life skills training program "Of Adolescents, By Adolescents" presented thought-provoking questions and activities to shed new light on individual rights, sexuality, self-esteem, citizenship, and youth participation.

Life skills went hand in hand with another exciting new concept – resiliency. Research revealed that self-esteem, an internal locus of control, a good relationship with at least one parent, and/or a strong relationship with an adult outside the family enabled many adolescents to overcome unfavorable circumstances. So the question begged, "How can these qualities and conditions be fostered for more adolescents?"

To accelerate the search for answers, PAHO and the International Adolescent Health Association organized "Resilience 2000," a conference that

Paulista State University in Botucatu, Brazil, is one of 23 UNI project sites that has helped change the way health educators and students address primary health care needs in their communities.

brought together some of the world's top experts in adolescent health and related issues.

Officials from PAHO and the Kellogg Foundation knew they also had to help find, train, and support skilled and committed workers at every level – especially those involved in community services. Consequently, the organizations embraced new technology as a strong ally in delivering distance learning.

Four of the region's leading universities participated, helping to develop human resources initiatives and materials with a new depth and reach. For instance, a team made up of members from PAHO, Johns Hopkins University School of Public Health, and the Institute for Global Tobacco developed a user-friendly CD-ROM that taught adolescents the negative impacts of smoking.

Speaking Up for a Change

Communicating messages about health to adolescents and about adolescents to the media was rightly perceived as a crucial art and science. And those who saw the importance of vigorous communications also perceived the need for an authentic voice – not adults speaking for adolescents, but rather young people themselves making their needs and aspirations heard.

The PAHO-Kellogg Foundation partnership was therefore committed to fostering youth participation and leadership. For example, young people in El Salvador, the Dominican Republic, and Bolivia helped design the *Youth Participation Manual*, which today serves as a guideline for action throughout Latin America. At the Central American Youth Forum, another group of adolescents reported that they were actively included in decision-making, proving that youth participation had transcended tokenism to become a genuine goal. Many youth leaders share this view.

"The PAHO-Kellogg Foundation project has given Latin American youth the opportunity to become actors of change and development in our societies," said Dina Teresita Espinosa of Colombia, who worked on her country's Youth Law. "Thanks to its emphasis on youth participation, the project's impact has been substantial."

Young people took part in activities that were as varied as their personal backgrounds. The World Scout Jamboree in Chile proved a great showcase for their artwork and for promoting adolescent health activities to visitors from all over the world. Meanwhile, young Ecuadorians completed training that would help them avoid getting cholera.

Chapter 7

Adolescent Health Comes of Age

All too often, adolescents are portrayed in the media as troublemakers, lacking both decency and direction. To address this problem, the PAHO-Kellogg Foundation partnership helped develop an "adolescent-friendly" network of journalists willing to spread the word that adolescents were a positive force in the social and economic growth of their countries.

Newspapers, TV, and radio were soon giving the positive aspects of youth more coverage. And, universities in nine Latin American countries included adolescent health and development in their social development curricula.

While projecting a more accurate image of young people to the image-makers was vital, other initiatives sought to strengthen the impact of messages designed to reach young people themselves. Workshops and conferences were designed to sharpen both specific and general messages about health. For instance, "Communication, Health, Adolescence and Youth," a 1998 conference in Peru, convened officials from the health and education ministry, universities, and youth development programs to plan courses and radio and TV programs that brought healthy messages to young people.

And in 2000, adolescent health even gained celebrity status when the film "Adolescents Today" aired on MTV's affiliates throughout Latin America.

'Net Working

As Latin American nations became increasingly connected to the global information society, demand for data and materials on adolescent health grew. In response, the PAHO-Kellogg Foundation project helped create a mailing list that has formed a vital network of adolescent health professionals, organizations, and programs from all over the world.

E-mail indeed developed into a powerful resource for sharing a wide range of information related to adolescent health. Electronic newsletters showcased World Bank projects, alerted professionals and youth to seminars and conferences, and offered scholarships and educational programs in this field of knowledge.

But perhaps the most important information initiative was the creation in 1999 of the "Virtual Adolescent Health Library" in conjunction with BIREME, the Regional Library of Medicine in Latin America. For the first time, health professionals everywhere could tap into a comprehensive bibliography and a huge directory of useful contacts in every aspect of adolescent health. The site carried news, legislation updates, and vital links. For professionals in remote areas of Latin America who had more difficulty keeping up with

the latest ideas and information, the virtual library was a powerful boost to their efforts on behalf of young people.

The Virtual Conference on Adolescent and Youth Health in 2002 marked another communications milestone. Empowered by the latest Internet tools, more than 800 participants shared information, questions, and opinions in a variety of forums and seminars focused on adolescent issues.

PAHO and the Kellogg Foundation also were eager to create a "culture of evaluation." As the program developed, ongoing evaluations, country visits, and feedback from key PAHO centers bolstered the process. As a result, technical and administrative managers could adapt and modify any aspect of a project to improve performance or meet unexpected needs. Further, adolescent health became the first PAHO unit to use on-line surveys and software for evaluation, blazing a trail for other divisions to follow.

As with all the activities in the PAHO-Kellogg Foundation partnership, evaluation was not an end in itself. Rather, it was a way to identify the strategies and services that would foster the most benefits. Dr. Maddaleno summed it up best when she said, "The PAHO-Kellogg Foundation project has been crucial in building capacity in Latin America and the Caribbean, encouraging innovative activities that helped place youth issues on the public agenda."

UNI students in the Community Partnership program focus on adolescent health projects at the State University of Londrina, Brazil.

Perhaps the biggest boon to medical information in the region came in 1967. PAHO helped create a pilot project that would eventually transform into BIREME, which continues to be a force in health information dissemination today.

Chapter 8:
The Information Explosion

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The Information Explosion

Connecting With the World

A computer, a printer, a CD-ROM reader, a fax machine. These are the basic components of a home office in technologically advanced areas. Many households around the world rely on these devices for everyday tasks, like keeping track of family finances or completing homework. But in some parts of Latin America, these now commonplace devices can help stop an epidemic, diagnose a rare condition, and save lives.

Recognizing technology's potential, PAHO has helped the Latin American and Caribbean Center for Information in Health Sciences (BIREME) send hundreds of these tools to libraries throughout the region. BIREME also has distributed thousands of CD-ROMS carrying volumes of timely and accurate information on research, health trends, and epidemiology, with new editions arriving quarterly. This portable, comparatively inexpensive solution has worked wonders – especially in areas where basic phone service is spotty and on-line services virtually nonexistent.

These important efforts were made possible by the groundbreaking work in medical information that PAHO and the Kellogg Foundation started in the 1960s. At the time, magnetic tape was still the dominant technology and the newly created BIREME simply sought decent medical textbooks to lend.

Lost Along the Paper Trail

In the early 1960s, if a doctor in Latin America needed information for a diagnosis or wanted the latest research on a treatment, he or she would often write to the U.S. National Library of Medicine (NLM) to request a

photocopy of a certain journal article. The region's demand for information was so heavy that more than half the requests to the NLM by foreign researchers came from Latin America. But the process was cumbersome. Health professionals had to provide foreign currency to cover costs and postal service could be slow and unreliable. Meanwhile, as time passed, a patient might falter or a disease might spread.

Thorough training and powerful technology have revolutionized medical record keeping in many Latin American nations.

Moreover, Latin American doctors and researchers often didn't know what their colleagues were doing, discovering, or discarding. Many studies circulated only through informal channels; others simply weren't published at all. That posed a major problem. Timely, accurate information is crucial to providing effective clinical treatment and pinpointing health crises, from epidemics to food-borne illnesses to cancer clusters.

Hospital record keeping also was dangerously inconsistent, making it difficult for everyone – from nurses to government officials – to make well-informed health-care decisions. For instance, when researchers conducting the Inter-American Investigation of Mortality in Childhood attempted to track deaths in Recife, Brazil, they found that records of children hospitalized there were scanty or, more than likely, completely missing.

The prospects for improvement were not promising. Only two schools in Latin America offered education in health information and record keeping, and there was a serious shortage of Spanish and Portuguese instructional materials.

Feeding a Hunger for Information

The first steps in the long journey to overcome these problems were taken in 1965, when the Kellogg Foundation supported the Education and Training Program in Medical Records and Hospital Statistics. PAHO quickly put these funds to good use, adding Ms. María Mercedes Segarra, a medical records librarian from Puerto Rico, to its staff in Washington, D.C.

Segarra's impact was immediate. In 1966, she helped develop a five-month course in medical records that PAHO and the Kellogg Foundation implemented in Costa Rica. The innovative curricula covered a wide range

of relevant topics, including library science, public health, statistics, administration, medical terminology, and anatomy. According to a PAHO field report, "Originally it was planned that this course would serve for training personnel from Central America, but the advantages of the course, that is, the good quality preparation, resulted in many applications from numerous other countries."

Trainees indeed arrived by the dozens, from countries across Latin America; and Costa Rica became somewhat of a central power in medical records training. And true to the PAHO-Kellogg Foundation partnership, the program had a snowball effect, with many graduates returning home to spread the gospel. One of these was Dr. Manildo Favero of Brazil. After a fellowship to study in Costa Rica, Dr. Favero organized courses in record keeping in Recife to help remedy the problems that had been identified there.

Although Costa Rica was an epicenter, PAHO and the Kellogg Foundation ensured that new training programs were established in many countries, from Jamaica to Uruguay. Thousands of professionals learned how to collect, distribute, and use medical records more effectively. To reinforce these positive changes, PAHO tackled the lack of training materials by developing instructional films and having texts translated into Spanish and Portuguese.

The program's final report sums up the collective effect: "Throughout the region a great and increasing interest is now being shown in the improvement of records and statistics."

Piloting Progress

Perhaps the biggest boon to medical information in the region came in 1967. Working with the NLM, the Brazilian government, and the São Paulo School of Medicine, PAHO created a pilot project that would eventually transform into BIREME, which continues to be a force in health information dissemination today.

The early years were lean, however. Lacking even a solid reference book collection, BIREME was deployed more as a fallback for small medical school libraries. But thanks in part to support from PAHO and the Kellogg Foundation, other aspects of its founding concept proved far-reaching. From the beginning, fostering cooperative exchanges and providing expanded access to new technologies were key to its success. BIREME's structural plan of a regional center and many regional subcenters also has withstood the test of time.

Chapter 8

The Information Explosion

Under the leadership of Dr. Amador Neghme Rodríguez, dean of the University of Chile's School of Medicine, BIREME's capabilities quickly increased, as did the demand for its services. Between 1969 and 1973, the library processed almost 250,000 requests for photocopies of journal articles, of which a remarkable 98 percent were fulfilled. Moreover, BIREME soon forged connections with major medical libraries in North America, Europe, and Asia. "As soon as physicians learn about its services, they query BIREME by letter, phone, or Telex," read an article in the Bulletin of the Medical Library Association.

From 1972 to 1975, PAHO and the Kellogg Foundation collaborated to add another dimension to BIREME's growing capabilities – educational programs to improve health science library services throughout South America. Nearly 100 librarians took BIREME's graduate training course, which honed their skills in managing operations, acquiring collections of biomedical literature, and developing services for physicians and scientists.

Backed by the PAHO-Kellogg Foundation partnership, BIREME also trained library users, ranging from medical school faculty members and students to physicians working in the field. BIREME staff used hands-on, practical demonstrations to teach these audiences how to access biomedical information more efficiently – helping them learn the nuances of bibliographic resources and library procedures. Orthopedic specialists, immunologists, nurses, and veterinarians all took advantage of the course.

A technician at the Caribbean Food and Nutrition Center in Kingston, Jamaica, has information at his fingertips, thanks to the LILACS system.

By the early 1970s, BIREME had exceeded its training goals. In fact, its education programs supported by the PAHO-Kellogg Foundation partnership included something grantseekers hadn't originally anticipated: training in using MEDLINE, the enormous and powerful on-line database at the NLM. "Access to the MEDLINE retrieval service is obtained by 'conversing' with a computer via a typewriter-like device," marveled the author of an article in a WHO newsletter.

Program chiefs dictated that no MEDLINE access would be installed in Latin America unless the recipients could demonstrate the knowledge to use it. A motivated cadre of senior BIREME staff and representatives from smaller sub-centers took the requisite training, and in November 1972, a direct

connection between MEDLINE and BIREME was, as reported by the Bulletin of the Medical Library Association," established experimentally via satellite."

The event foreshadowed the incredible impact that the Internet would make on public health, not only in Latin America, but worldwide.

Where Virtual LILACS Bloom

As anyone who has used a search engine knows, carefully selecting the search words is vital to obtaining useful information. In a region that habitually and fluently switches from Spanish to Portuguese to English, the problem escalates. BIREME's librarians foresaw the challenge and made developing a database with a "common language" of methodologies – bibliographic descriptors and indexing – a top priority.

So bloomed LILACS, (Latin American Literature in Health Science), in the early 1980s. The goal was to create a system in which records produced at any center could be efficiently transferred to any other center. Its language was based in worldwide descriptive systems for maximum compatibility, and CD-ROMs loaded with the newest information provided regular updates.

The BIREME Web site, located at www.bireme.br, is a complete resource for data on a range of health topics and issues.

PAHO and the Kellogg Foundation together took on the challenge of helping BIREME disseminate the LILACS methodology. Before the Project Strengthening the Regional Health Information System began, an average of about 7,000 records had been entered into the LILACS database each year. In 1988 – the project's first year – the number jumped to 11,602. And by 1989, annual entrees had exceeded 17,000.

PAHO and the Kellogg Foundation also helped BIREME expand the scope of the LILACS system to involve Caribbean countries and to include information on nursing, dentistry, and health administration. Due to this expansion, the third update of the CD-ROM in 1990 had more than 60,000 bibliographic records.

In 1994, BIREME provided services directly through the Internet for the very first time, enabling it to reach more people than ever before. And with PAHO's help, BIREME responded to the Declaration of San José – signed at the Fourth Regional Conference on Health Science Information in Costa Rica – which called for a regional virtual health library.

Today, at www.bireme.br, you can see some of the results. Fourteen bibliographic databases, numerous journals, and a special concentration on adolescent health and environmental issues are all accessible with a few simple keystrokes.

Connecting the Islands

As BIREME expanded its scope into the Caribbean, training in medical informatics became essential there, too. Once again, the PAHO-Kellogg Foundation partnership responded, this time in 1996 with the Human Resources Training and Development in Health Information Systems Project.

Based at the Barbados Community College, the project sought to improve the effectiveness and efficiency of service delivery by helping every English-speaking Caribbean country establish a functional health information system.

Project officers pursued this goal in several ways. In addition to producing an array of cost-effective training materials, such as distance education and self-instruction modules, they developed a two-day course in informatics that met the needs of professionals working in diverse fields, including pharmacology, environmental health, and laboratory services.

Additionally, the project offered a more comprehensive course called "Applications in Health Information Management." Geared to help middle- and upper-level managers make better use of information when making important decisions, the course included a six-week application period in which trainees applied newly acquired skills to their actual work environments.

By offering a comprehensive Diploma in Health Informatics, the project also served professionals working at the highest levels of health planning. In order to graduate, the students – many of whom worked for ministries of health throughout the Caribbean – had to design and implement an original information project that responded to real needs in their home countries. For example:

- In her project titled "Active Aging Makes a Difference," Cleopatra De Leon-Abraham created a system to help health officials in Trinidad and Tobago collect and use information relating to the care of the elderly.
- Franz H. Jordan implemented a methodology to evaluate how training at Barbados' emergency ambulance service affects pre-hospital care.
- Using a special informatics methodology, Stacey Battice tracked the benefits of providing St. Kitts' students with education on HIV/AIDS.
- By improving the way public health records are attained and stored, Claudius Desir helped expand immunization coverage in St. Lucia.

From its inception to 2001, more than 350 health professionals have benefited from the project, which was praised by the Barbados Ministry of Health as being the best source of training in the country. The various programs received high marks from participants, too, who said the training was relevant for their jobs and gave them a new zeal toward improving information technology.

As the digital era continues, PAHO's commitment to technology bodes well for the future of public health – in the Caribbean, in Latin America, and around the world.

UNI students work with computer programs that enable medical practitioners to improve their effectiveness and efficiency in delivering community health care services.

"If I have the good fortune to pay off my debts and prosper in my business ventures, I hope all I can save will be used for the benefit of mankind."

W.K. Kellogg
Founder,
W.K. Kellogg Foundation

Onward

Hundreds of projects. Thousands of dedicated professionals. Millions of lives.

One amazing partnership.

With a shared passion for improving the human condition, PAHO and the Kellogg Foundation have together pursued a truly noble goal: better health for the people of the Americas.

As outlined in this brief retrospective, the partnership's battles against malnutrition and communicable disease have not only improved quality of life, but prolonged it as well. And its forays into oral health have produced more healthy smiles than some pundits ever thought possible.

Working collaboratively, PAHO and the Kellogg Foundation have offered new protections for mother and child, from improved prenatal care to stronger defenses against once common childhood afflictions. The partnership also has given adolescents shelter from violence, drugs, and a host of other social and medical problems. Equally important, it's given them a stronger voice with which to express themselves.

In the realm of education, PAHO and the Kellogg Foundation have opened new doors for doctors, dentists, nurses, health administrators, and others with a desire to heal. Additionally, the organizations have collected and released vital health information on the wings of increasingly sophisticated technology.

Throughout these wonderfully varied efforts, PAHO and the Kellogg Foundation consistently emphasized the importance of prevention and promotion. And in the process, they've helped transform the very nature of public health.

Despite such wide-sweeping success, there can be no pause. While specific threats may have changed, an urgency remains: Too many people in the Americas are still ravaged daily by poor health and a lack of resources.

But hope springs eternal – a message eloquently captured by PAHO's new director, Dr. Mirta Roses, during her inaugural address:

"This will be the century of networks, of connectivity and interdependence, that will enable us to overcome the barriers of space and time and open up heretofore unimaginable possibilities for humanity."

Inspired by such a vision, PAHO and the Kellogg Foundation will continue their drive toward "health for all." With a bond forged over six decades, the two organizations stand ready to face and improve the future together.

PanAmerican Health Organization

Directors

Dr. Walter Wyman (1902-1911)
Contributions to Quarantine

Born August 17, 1848 in St. Louis, Missouri, Dr. Wyman became U.S. Surgeon General in 1902. Under his direction, the Public Health and Marine Hospital Service carried out medical inspections of immigrants arriving at busy reception points, like Ellis Island in New York Harbor. The quarantine practices overseen by Dr. Wyman were later established in major ports across the U.S. and beyond, including Cuba, Puerto Rico, and the Panama Canal. The first of three U.S. Surgeons General to serve as director, Dr. Wyman continued in both roles until his death in November 1911.

Dr. Rupert Blue (1912-1920)
Hunting Down Disease

Dr. Rupert Blue was born May 30, 1868. After graduating from the University of Maryland in 1892, he spent more than a decade with the U.S. Public Health Service. Dr. Blue oversaw effective rat eradication and urban sanitation programs in San Francisco, helping to erase the specter of bubonic plague from the city. Throughout his tenure, he directed various public health projects in hard-hit areas across the U.S. In 1912, Dr. Blue became U.S. Surgeon General and director of PAHO's precursor, the International Sanitary Bureau. A native of Richmond County, North Carolina, Dr. Blue died in April 1948.

Dr. Hugh Smith Cumming (1920-1947)
Presiding Over Expansion

The third U.S. Surgeon General to also serve as director, Dr. Cumming's longstanding leadership provided stability and stimulus as the organization expanded in size and influence. He brought Latin American countries together to ratify the Pan American Sanitary Code and facilitated ongoing communication between the hemisphere's public health leaders. Under Dr. Cumming's guidance, PAHO's annual budget and permanent staff were increased, and the prestigious journal *Boletín de la Oficina Sanitaria Panamericana* became a source of quality information.

Dr. Cummings was born in Hampton, Virginia, on August 17, 1869, and obtained his medical degrees from University of Virginia and the University College of Medicine in Richmond. He died in April 1948.

Dr. Fred Lowe Soper (1947-1959)
Showing Independence

Dr. Soper became director at a critical time. Under his guidance, the organization was able to retain its independence while acquiring new status as the Regional Office for the Americas, part of WHO.

Born in Hutchinson, Kansas, December 13, 1893, Dr. Soper studied medicine at the University of Chicago and received his doctorate from the Johns Hopkins School of Public Health. Early in his career, he was actively involved in campaigns against hookworm, yellow fever, and malaria in Latin America. Twice re-elected director, Dr. Soper oversaw significant growth and helped establish three important international research and training centers (INCAP, PANAFTOSA, and INPPAZ). He died in February 1977.

Dr. Abraham Horwitz (1959-1975)
The First Latin American Director

Abraham Horwitz was born in Santiago, Chile, on December 25, 1910. His distinguished 60-year career in public health started in 1936, when he received his M.D. degree from the University of Chile. After receiving a master's degree in public health from Johns Hopkins University in 1944, Dr. Horwitz joined PAHO in 1950, serving in both Washington, D.C., and in the field. He was elected director in 1958 and served four consecutive terms in that post, managing dramatically increased budgets and diverse programs.

During his tenure as director, Dr. Horwitz oversaw the building of PAHO's new headquarters in Washington, D.C., and established several international centers of public health. He died on July 10, 2000.

Dr. Héctor R. Acuña Monteverde (1975-1983)
Expanding PAHO's Reach

As PAHO's director, Dr. Acuña championed more powerful field offices to provide services to greater numbers of people, using the burgeoning potential of information technology as a vital tool.

Born in Sonora, Mexico, on September 24, 1921, Dr. Acuña studied to become a surgeon at the National Autonomous University of Mexico, earning his degree in 1947. He began his career with PAHO in 1954, after obtaining a Master of Public Health degree from Yale University. Following a distinguished career with WHO and the Mexican government, he returned to PAHO as director in 1975.

Dr. Carlyle Guerra de Macedo (1983-1995)
Practical Policies From a Wide Perspective

Dr. Macedo was born in Piauí, Brazil, on April 15, 1937. His studies at the Federal University of Pernambuco, where he earned his medical degree in 1962, were followed by postgraduate work at the University of Pittsburgh and the University of North Carolina. He came to PAHO after a distinguished career in Brazilian public health and academia.

As director, Dr. Macedo advanced practical policies to improve basic health care and helped pioneer local health initiatives. Re-elected twice, he emphasized the importance of social, political, and economic development in Latin America as means to achieving better public health. Today, Dr. Macedo serves as director emeritus of PAHO.

Dr. George A.O. Alleyne (1995-2002)
Moving Toward Good Health for All

Dr. Alleyne's pursuit of "Health for All" took him from his home island of Barbados, where he was born in October 1932, to the University of London – where he earned his M.D. in 1965. After serving on many important boards and committees, including WHO's tropical disease research program, he joined PAHO in 1981 as chief of research promotion and coordination. He began his first term as director of PAHO in 1995.

Equity and Pan-Americanism are strong themes in Dr. Alleyne's work – evident throughout PAHO's regional programming. In 1990, Her Majesty Queen Elizabeth II made him Knight Bachelor for his services to medicine. And in 2001, he was awarded the Order of the Caribbean Community, the highest honor a Caribbean national can attain.

Dr. Mirta Roses Periago (2002-)
Shaping a New Era of Equality

After graduating as a physician and surgeon from the National University of Córdoba in 1969, Dr. Mirta Roses Periago forged a distinguished career as an epidemiologist. In 1974, she joined Argentina's Ministry of Public Health, where she served in the areas of epidemiology, research, and emergency preparedness.

Dr. Roses joined PAHO/WHO in 1984, eventually becoming assistant director of PAHO and a member of the WHO Global Program Management Group. Elected PAHO director in 2002, Dr. Roses pledged her commitment to the reduction of inequities and social exclusion during her inauguration.

Dr. Arthur C. Selmon, President (1930)
Guiding the Foundation's First Steps

Born December 1877 in Columbus Junction, Iowa, Dr. Arthur C. Selmon graduated from the American Medical Missionary College of Battle Creek, Michigan, in 1902. A year later, he left the U.S. with his wife, also a physician, for China, where they worked as medical missionaries until 1924.

When W.K. Kellogg set up his foundation in 1930, he asked Dr. Selmon, a member of the American Medical Association and a fellow of the American College of Physicians, to help lead the organization. Unfortunately, after serving for just a short time, Dr. Selmon developed a serious heart condition and died in May 1931.

Wendell Smith, President (1930-1933)
Off and Running

Wendell Smith was named president in December 1930, replacing A.C. Selmon who had been weakened by ill health. In addition to his leadership duties at the Foundation, Mr. Smith was vice president of A-B Stove Company in Battle Creek.

While Mr. Smith was president, the Foundation began organizing its first substantial programming effort: the Michigan Community Health Project.

Dr. Stuart Pritchard, President (1933-1940)
Shaping a Broad Vision

A licensed airplane pilot and energetic outdoorsman, Dr. Stuart Pritchard had a broad vision that matched his expansive interests. Born in Auburn, Ontario, in 1882, Dr. Pritchard received his medical degree from the University of Toronto in 1906. After graduating, he specialized in respiratory diseases, and eventually landed at the Battle Creek Sanitarium in 1913 to lead its Chest Department – a post he held for 17 years.

In 1933, at the personal request of W.K. Kellogg, Dr. Pritchard accepted the offer to become the Foundation's president. A tireless and enthusiastic leader, Dr. Pritchard oversaw the rapid expansion of the Michigan Community Health Project, which served seven counties in rural, south central Michigan. He died in August 1940.

Dr. George Darling, President (1940-1943)
Planting the Seeds of Partnership

Dr. George B. Darling took over the presidency of the Kellogg Foundation in 1940, presiding over the organization during much of World War II.

During Dr. Darling's presidency, the organization forged its very first links with Latin America, in response to the U.S. State Department's call for closer ties with the region. It was during this time that the Kellogg Foundation started its enduring relationship with PAHO.

Dr. Emory Morris, President and Chairman of the Board (1943-1970)
A Quiet But Daring Visionary

Born in Nashville, Michigan, in May 1905, Dr. Emory Morris began his work with the Kellogg Foundation from its earliest days in 1930. A dentist who achieved high honors in his profession, Dr. Morris was largely responsible for translating W.K. Kellogg's philanthropic visions into pioneering yet practical programs. Under his guidance, the Michigan Community Health Project spread out from seven counties to hundreds of programs on four continents.

While Dr. Morris was president, the Kellogg Foundation was involved in some of the most important health and educational concepts of the past century, including continuing education, health delivery systems, and agricultural productivity to meet world food needs. He served as president until 1967 and as chairman of the board until retiring from day-to-day leadership in 1970. He died in July 1974.

Dr. Philip E. Blackerby, President (1967-1970)
Sound Judgment for a Soaring Institution

Having joined the Kellogg Foundation in 1945 as director of the dentistry division, Dr. Philip Blackerby became president in 1967. By that time, the Kellogg Foundation was ranked among the top philanthropic institutions in the U.S. He continued to develop and strengthen its programs, especially in the areas of education, agriculture, and health in North and South America, Europe, and Australia.

Dr. Blackerby brought to his work a vast knowledge and experience of public health, notably in the field of dentistry, where he achieved many honors. Dr. Blackerby resigned due to ill health in 1970, and died in 1998.

Dr. Russell G. Mawby, CEO and Chairman (1970-1994)
Yielding a Rich Harvest

Dr. Russell Mawby grew up in Michigan, where 4-H and state programs sparked his future philanthropic career. He obtained degrees in horticulture and agricultural economics from Michigan State and Purdue Universities, and served as a faculty member at both institutions.

Dr. Mawby joined the W.K. Kellogg Foundation in 1965 as director of the agriculture division. He was named vice president in 1967 and became CEO in 1970. He retired as CEO and chairman in 1995, but continued to serve five additional years as a Trustee.

During his 36-year Foundation career, much of his work focused on helping young people realize their potential through programs like the Michigan Community Foundation's Youth Project. He also was instrumental in the Kellogg Foundation's growth as it became one of the world's largest philanthropic institutions.

Dr. Norman Brown, President (1991-1995)
Pioneering New Fields for Philanthropy

Starting his career at the Kellogg Foundation in 1984 as a program director, Dr. Brown was named president in 1991. Regarded as a visionary thinker and innovator, he brought a diversity of experience, having worked in university, corporate, and government environments.

Dr. Brown was responsible for pioneering the Kellogg Foundation's first programs in Africa, including one that directly addressed racial discrimination in South Africa during its most troubled years. Additionally, Dr. Brown built a reputation as a passionate advocate for volunteerism and community development. He retired from the organization in 1995 and has since pursued philanthropic education and consultancy projects around the world.

Dr. William C. Richardson, President and CEO (1995-)
Creative Leadership in a Time of Change

A specialist in health care organization and financing, Dr. Richardson earned his MBA in 1964 and Ph.D. in 1971, both from the University of Chicago Graduate School of Business. Dr. Richardson served as president of Johns Hopkins University for five years before becoming president of the Kellogg Foundation in 1995.

Health, education, and community development are passions Dr. Richardson shares with the organization he leads. Combined with his broad experience in all these fields, he is guiding the Kellogg Foundation – now one of the world's largest philanthropies – through the increasingly rapid changes of the new millennium.

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LAC 4130.e
Item# 1314
0803 6M SCG
Printed on Recycled Paper

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